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PART FIRST.

ORIGINAL COMMUNICATIONS.

ART. I.—AN INTRODUCTORY LECTURE, *Read before the Class in Starling Medical College, November* 2, 1852. By ROBERT H. PADDOCK, M. D., Professor of Anatomy and Physiology.

YOUNG GENTLEMEN—You have assembled together in this place to devote yourselves to a high and honorable vocation. The object and end of the acquisitions you are here to make is to enable you to do deeds of benevolence and good will to men. Turning away from the honorable avocations of industrial life—precluding yourselves from the chances of commercial wealth, and of advancement in those two great fields of unhallowed ambition which tempt so many to their ruin—the noisy pomp and covert cruelty of war, and the debasing, heartless, soulless, intriguing of politics—you have come in here to learn to be real philanthropists and benefactors of our race. We teach not here the use of those weapons wherewith is displayed the violent impetuosity of human passion, the madness of human ambition,

or the rancor of mortal hate. True indeed it is that we wage an offensive war, and gird ourselves for a sore conflict; but our enemies are sickness and sorrow and death, our weapons are the means of salvation, our victory is bloodless, and our triumph rejoicing and gladness.

While the history of mankind at large is confessedly little else than a record of an endless series of cruel struggles for mastery and dominion, the votaries of our art have been seen, in all ages and among all nations, conspiring and consulting together to alleviate and abbreviate human suffering: and to heal those wounds inflicted by their contemporaries upon each other in the rage of their bloody conflicts and malicious struggles. In looking upon the dark picture of the world's doings, as daguerreotyped by the light of letters, it is a relief to the eye, and a redeeming trait in human character, to be able to trace the light line of those who, through so many ages, and in uninterrupted succession, have been found willing thus to devote themselves, with all their powers, to a purpose so high and so eminently benevolent. Their names, it is true, are not, like those of warlike chieftains, blazoned on every vulgar object, and flaunted on every breeze; yet they live, and will continue to live, and to outlive, forever, those greatest among the bloody scourges that have cursed mankind. The memory of those who shine, and have shone as stars of the first magnitude in the galaxy of our profession, is embalmed in the gratitude of the sons and daughters of affliction, who have lived, and who shall live, till the end of time; it is bedewed with their tears of love and joy, and sanctified by their countless benedictions.

Allow me then to congratulate you upon the choice of a profession which you have made. Other paths might conduct you to some more unstable and giddy eminence, where for one brief hour, you might, like the man who leaped the falls of Niagara, attract the vacant stare of those unable to distinguish between the elevation of the body and the elevation of the soul; but none will more certainly introduce you

to the companionship of those who have ever stood first and foremost in the cause of science, of civilization, and of humanity. With such patterns of excellence before you as are engraved upon the records of medical lore, I cannot but express the wish and the confident expectation that you will not suffer reproach to fall upon the reputation of the profession through any deficiency or dereliction of your own.

I also congratulate you, and through you those who may hereafter occupy your seats, that so much has been done by the wise and benevolent of this place to render the means of instruction so easily accessible to all. I have to regret only that the public sentiment of our time and country is yet so far behind the magnanimous policy befitting this period of the world's history, that our halls of medical instruction cannot be made quite free, and our lists for rival medical instructors quite open to the competition of all honorable and honest ambition. At present, all our literary and professional schools are, of necessity, to a very great extent, private enterprizes; created and carried forward by the benefactions of their more wealthy friends, aided by the contributions of those who, from year to year, resort to them for instruction. But knowledge, like the air we breathe, is designed for all and adapted to all; and when the day shall come that the eyes of men shall be opened to discover their true interests, all our institutions of learning, whether literary, scientific, or professional, from the lowest to the highest, shall be thrown wide open, and the light of letters shall be thus dispersed and disseminated among the whole people.

Where private individual enterprise has much to do in establishing and maintaining literary or professional schools, they are in great danger of becoming narrow and partizan in their aims, and ungenerous and selfish in their policy. I regard it as a most auspicious feature in the organization of this institution, that its founder had no private pecuniary interest in its establishment and success, and has entailed none on his representatives or favorites. On the contrary, there is a clause in the deed of trust, which reflects peculiar honor upon its author, by enjoining it upon the almoners of his

bounty to regard primarily and principally in their appointment of teachers the *qualifications* of the candidate; thus securing the school and the public, as far as it was in his power, from the untoward influences which are felt and lamented in nearly all similar institutions in our country. Public schools and colleges, like public fountains, should be so created and so conducted as to be great public blessings; and not the mere tools and trumpets of professional demagogues. Shame on those diminutive souls, so inflated with vanity and self-conceit that they can see no other end to be accomplished by a great and benevolent institution but to afford them an opportunity to show their wondrous parts.

Shame on all nepotic dunces, toppling in professoral chairs, "A world too wide," and vainly striving to inflate their tiny sides to fill them. Supported in their places, like a cork on water, by the subjacent medium, their simple souls imagine that all around and beneath them was created expressly for their use; while, to all the world besides, they are seen, like "Pygmies perched on Alps," to be pygmies still.

The advantages of this location as a seat for literary and professional schools are so obvious as to have attracted attention at an early period in its history; and I trust that what we see already accomplished here in establishing schools, seminaries, and colleges, is the commencement of a movement that shall render this central spot a focus of light and knowledge that shall irradiate the vast circumference of the State.

The city itself is sufficiently large to afford all desirable comforts and conveniences compatible with economical living; and yet so retired as to be exempt from the debasing influences peculiar to a great commercial metropolis.

And now, young gentlemen, I would fain conduct you to the summit of some commanding eminence which overlooks the whole field you are here to cultivate, that you might learn, at a single view, its entire topography. You would then observe that it lies in the midst of the boundless regions of natural history, and that, in the distance, its boun-

daries fade away imperceptibly into those of other departments in the illimitable view. You would see that the mountain ranges are not broken at its borders, nor the streams stopped in their courses; but that its valleys are enriched by the rivulets of adjacent territories, more or less remote, and that the crystal fountains upon its borders discharge themselves into the nearest neighboring states. You would also observe that its various subdivisions are so contrived that every one lies contiguous, not only to its fellows, but also to the foreign states without; so that although it is erected into a separate and distinct principality, it is far from being insulated by itself. In fact, its connections are so numerous and so complicated with the surrounding departments, that it would be a task alike unprofitable and undesirable to attempt to find the exact boundary line between them.

Natural history, you know, embraces within its ample range, an account of all material things. Aside from mental, moral, and mathematical topics, it embraces, in fact, all science. What then can be the study of medicine but an investigation of a few select branches of natural history, an acquaintance with which is deemed indispensable in the practice of the healing art? Human Anatomy and Physiology are but parts of the great department of *Zoology*, which includes not only an account of the organization and functions of the different parts of all animals, but also the history of their forms, habits, and classification. The Materia Medica is but a collection of agents or substances culled from Botany, Mineralogy, and Zoology; and a knowledge of their effects when applied to the human body in health and in disease, constitutes an acquaintance with this part of medical science. Chemistry is the last inquiry of the naturalist into the ultimate constitution of things and of the laws which govern it. Pathology, too, is a part of natural history, for it includes the entire history of disease, as one of the accidents of living beings; while Therapeutics, Midwifery, and Surgery, are the practical arts of the profession whose rules are based upon the principles of

the above mentioned sciences, or upon the results of experiment.

All the preparatory scientific branches of a medical education are therefore fairly comprehended in a non-professional course of liberal studies; or rather, in accordance with the notions of the ancients, medicine is a part of liberal learning, and is included in every comprehensive scheme of mental discipline. It is only because our courses of study, even in the most approved schools, are necessarily limited in their range and duration, that we are compelled to instruct, even the best educated of our medical pupils, not only in the practical arts of the profession, but also in its preliminary and preparatory departments. A moment's attention to the course of study marked out by our medical colleges will show you that by far the greater portion of your term is to be devoted to the preparatory branches. This is as it should be. You are to study medicine mostly as a science; you are to practise it as an art. The facts of science are exceedingly numerous, its classifications artificial and complicated, and its nomenclature almost insupportably burdensome; while the rules of art, whether based upon experience or upon scientific principles, are comparatively few and of easy comprehension and application.

There is another reason, too, why the scientific part of your course should be made paramount to the practical. The whole of subsequent life may very likely be devoted to the acquisition of skill and dexterity in the practical parts of the profession, while your duties may afford little time or opportunity for scientific investigation. The term of three brief years is certainly little enough wherein to lay the foundations to build upon in subsequent life. It would be well to spend the whole of this period upon either one of the two great fundamental branches of medical science, Anatomy and Pathology, were it not that life is so short, and learning so long, that we are obliged to content ourselves with a knowledge of the bare elements of science if we would devote ourselves to the practical duties of a profession.

What shall we say then to those whose anxiety to engage in the conflict with disease is so great that they are unwilling to wait in patience even till the expiration of the prescribed limit of their pupilage? They would fain be visiting hospitals and making out prescriptions before they have qualified themselves to profit by clinical opportunities, however valuable or extensive. Such misguided zeal to attain the ends of knowledge without having used the means for its acquisition, can result in nothing less than defeat and disgrace. As well might one attempt to gain information by visiting a vast library whose books were all written in a strange character and language, and in accordance with unknown grammatical rules. Stores of instruction they might contain, but he would be utterly unable to unlock and appropriate their hidden treasures.

Let me caution you, therefore, to restrain every impatient inclination that may arise which would prematurely plunge you into the midst of the practice of a profession that you have never thoroughly studied. Master all its elementary branches, as you encounter them in their several places; dry and uninteresting though some of them may appear. Attempt not to overleap or neglect any of them, lest, when the opportunity and the appropriate season shall have passed away, finding yourselves conspicuous objects of ridicule or reproach, you begin to utter the now futile lamentation, "Oh that I had remained a little longer in Jericho till my beard had grown."

I remark, in the next place, that you are not to expect *to perfect* yourselves here in all the elementary branches of your profession. Each of the several sciences which claims your attention is absolutely without limit. The works of the Great Creator, are, like Himself, past finding out unto perfection.

But because we may not reach the utmost limit of a boundless field, can we not therefore pass over certain well defined stages therein? Hope not then to gain an acquaintance with all science, or all learning; but strive rather to comprehend clearly, and to retain tenaciously, those dis-

tinct and elementary portions of the several topics to which your attention may be directed. Make them familiar, as the letters of the alphabet, that you may apprehend them at a glance, not only when viewed separately, as individuals, but also in their most complex combinations; and you may rest assured that such an acquaintance with them will be a sure guide through all the devious paths of your intellectual pilgrimage. It will restrain irrational erratic speculation, and will enable you to make real and substantial progress in unfolding the mysteries of nature by keeping you ever on the right track while pursuing your investigations. Perfection in the aggregate is attained only by the perfection of every component part. The magnifier reveals no defects in a perfect masterpiece; and the analysis of a model and masterly mind discloses no unpolished stones in the intellectual fabric. It is not to be expected that any one mind should make all the acquisitions within the power of mortals. So far is this from being the case that a universal smattering of all kinds of learning is compatible only with universal ignorance. We should learn *much*, not *many things*—*multum*, *non multa*. Every acquisition should be distinct and individual in its kind, and should be prosecuted unto perfection. The subject under consideration should be viewed in every possible attitude, and from every possible point of observation, till all its features, and all its relations, become so familiar as never afterwards to be mistaken or misinterpreted. Those, and those only, who proceed upon this plan can become really distinguished and useful. They will not, it is true, possess all learning and all knowledge; but what they do acquire they will be able to turn to good account; because it is real, substantial and familiar, always available, and always profitable for instruction and direction.

It is also of great importance to distinguish carefully and clearly between the domains of ignorance and knowledge, of certainty and uncertainty. This may, at the first thought, seem an easy task; since knowledge is light, and ignorance is darkness, any man, with his eyes open, can distinguish the day from the night. But there is an intermediate twilight,

and this twilight varies exceedingly in length, in different localities, and at different seasons; and who can tell the precise moment at which, in all places and under all variations, the day ends and the night begins? So in the regions of science there is a space occupied by the conjectural and the probable, and this latter passes by almost insensible gradations into the rank of established truth. The naturalist divides all material things into the two great families of organic and inorganic nature: yet is there a class of objects still occupying a disputed territory between the acknowledged dominions of these two comprehensive groups.

It is a favorite dogma of some that there is no such thing as certain knowledge, unless it be in the science of mathematics; least of all is there any such thing as a moral or medical certainty. Let such as believe this have the full benefit of their convictions, both intellectually and morally, and let them, if they will, like Berkeley, live and die in doubt of their own existence. For my own part, I freely confess that I cherish an unwavering faith in the absolute certainty of the knowledge we have of all the great facts and principles in physical, mental, and moral science. A full conviction of the truthful and substantial nature of the acquisitions we have already made is the only basis for all future efforts, and the only stimulus that calls them forth. Indeed, it seems impossible for us to be mistaken in this matter; for all the numberless acts and plans of daily life are based upon the idea of the reality of our notions, and the truthfulness of our principles. It is only when we assume as true what is not well established and generally admitted; when theory or hypothesis takes the place of sound reason or demonstration, that we are liable to disappointment in the result. And this brings us back to the remark just made, that we should learn to distinguish carefully and clearly between the known and the unknown, the certain and the probable. This is no easy task. Indeed, the adjustment of a boundary line is always a work requiring an intimate acquaintance with the subject; a knowledge of all the natural and artificial landmarks of the disputed territory, together with all the light

that can be thrown upon the subject by recorded history, the testimony of living witnesses, a patient investigation and an impartial and discriminating judgment. This remark holds true quite as obviously in the intellectual as in the natural world; and surely it is quite as important a matter in the latter as in the former. And it is because the distinction is not obvious and easy, but demands careful observation, accurate knowledge, and much reflection, that the effort to determine it is the more useful and important. We must of necessity have become familiar with every part of a subject, and must have viewed it in every light and in all its relations, when we have clearly settled, in our own minds, just what and how much is known concerning it, and just when we pass the limits of certainty and enter those of conjecture. Here it happens that our labor to settle the limits of our knowledge leads us unavoidably to an intimate acquaintance with what is well known upon the subject that may engage our attention; at the same time that it enables us to detect the falsehood or fallacy of those speculations which are based upon unknown or hypothetical qualities and relations. Nor is our labor in vain, because when the line is settled in reference to any subject it is thereafter constantly liable to variation. Knowledge is always aggressive, and the boundaries of its dominions, like those of some powerful monarch, are constantly enlarging at the expense of the weaker border territories of ignorance. When, therefore, we seem to have arranged all that is known upon a given subject upon the right, and to have left all that is unknown upon the left of our mental Rio Grande; we discover, after a little season, some islands, before unobserved in the midst of the stream; the main channel has been shifting; and soon an entire resurvey of our boundary becomes indispensable.

It is only by thus continually following up the march of mind, if indeed we may not lead a battallion, that we can keep the map of human knowledge and progress adjusted to the revolutions of the times, and understand always the limits and the capabilities of the particular province in which we may be stationed.

Let no one be alarmed lest the intimate acquaintance with subjects upon which I insist should circumscribe the range of his intellectual vision within too narrow limits. What though there be a popular demand for breadth of beam rather than for depth of hold? Are not all such top-heavy craft upset by the first gale? We *cannot all know all things*, though each individual may become excellent in something; and all should have the independence to remain ignorant of very much that superficial minds suppose that everybody ought to know.

If the channel of thought is deep it cannot be also exceedingly broad; otherwise one mind might do all the thinking for the race. Such is not the economy of Divine Providence either in the material or the intellectual world. All the rivers upon the earth do not flow together and constitute one enormously and uselessly huge stream; but each of the ten thousand currents which adorn and irrigate the surface of the globe, though of moderate breadth, if only its *depth* be sufficient, is adequate for the commerce of its banks.

Neither is all intellectual power given to one man, wherewith to monopolize all mental labor; but each individual has a work of his own to do; and if he would be distinguished, let him undertake no more than he can do thoroughly and perfectly.

It has been remarked that medicine should be studied as a science, though necessarily practiced as an art. The distinction between these two terms is not always preserved, even by those to whom we look as authority for the use of language. Science, in a comprehensive and indiscriminate sense, is often used to signify general knowledge, like the original Latin term *scientia:* but in a more limited and distinctive acceptation it implies a collection of principles and facts in relation to any subject of our knowledge, methodically classified and arranged. In this sense it includes all we know or can learn by purely intellectual operations; all principles and logical deductions from them, all comparisons and relations established by reason; all that can be traced to abstract principles or speculative philosophy as its

source. *Art*, on the other hand, includes that portion of human knowledge which is acquired by practice, and which may with propriety be called skill or dexterity. It is not so much an intellectual acquisition as a mechanical accomplishment; for it cannot be attained by study or by logic, but is the result of actual and oft-repeated operations. Science and art thus defined, although perfectly distinct in nature and office, are nevertheless intimately connected in actual life, since the former often gives the rule by which the latter executes its task. Hence we often speak of a *scientific artist* as one who is able to make the rule, and then reduce it to practice and show the result of his skill, or artistic accomplishments.

Now this is precisely what I would recommend to the medical student as the end to be attained by his course of preparation, to become *a scientific artist*. In order to compass this desirable end, need I say that the scientific must necessarily precede and underlie the artistic?—That the *head* must first be replenished in order that it may be able to guide the *hand*? I have already alluded to this point in speaking of the undue anxiety manifested by some pupils to engage in practice, or, at least, to witness practice, before the time arrives for them to profit thereby; in other words, to become skilful in the *art* before they have learned the *science* of medicine.

There is a way of learning to be a doctor, and one which has been tried often enough to test its value, which is in perfect consistency with this rule of procedure. Would any of you give it a trial? Then purchase an old-fashioned pair of huge leathern saddle-bags, mount a horse, and having your wallet well crammed with drugs and herbs, go and ride for a series of years with a practitioner.

In process of time, if your master is a shrewd observer, and a man of practical tact and experience, and if you are clever and tractable, you will acquire no inconsiderable skill in the management of most diseases prevalent in the neighborhood. You will learn your trade, as you would any mechanical art, in so far as it is understood, and in the way it is practised by your preceptor; and you will be able to give as good a reason for your practice in any case as most persons can give

for their opinions:—Your teacher said so. Furthermore, you will have the happiness never to be troubled with a doubt that your practice is the very best possible; and if your patients die sometimes under it, as they always will under any treatment, you have the surest evidence thereby that their time had come. Your patrons, too, will most likely be quite satisfied with your course; knowing that you learned all that your preceptor had gained by a long experience, and well assured that what was not included within the range of his far-reaching vision is not worth knowing. Thus you may lead a quiet and happy life in your own little circle, be called the doctor, and really believe yourself to be a doctor in fact. You may smooth the rugged way into life and out of it for several generations, perform every office of kindness for their physical comfort; lance their gums and saw off the strings which tie their tongues, with the back of your bistoury, while they are children; and make salves, pastes, and poultices for them in adult life. You may strive, in all honesty and sincerity, to benefit your patients, and you may die respected and useful —*as a neighborhood nurse*, which any *old woman* might have done as well.

But would you become physicians in the true and catholic sense? The process is quite a different one. It consists not in storing a wallet with drugs, at the outset of the course, but in replenishing the brain with ideas; not in riding a horse, but in studying a book; not in seeing a dunce drug a sick man, but in looking into the composition of bones and muscles, of nerves and blood-vessels. In other words, the first thing to be done is to gain some acquaintance with the physical structure of the human body, upon which all your subsequent operations are to terminate. You should learn not only its physical structure, anatomically and chemically, but also the natural and healthy action of all its parts and organs, and the action of other substances when applied to it both in health and in disease.

To this end the sciences of Anatomy, Physiology, Chemistry, Botany, and the various actions, in health and disease, of the various agents which may be brought to bear upon the

human body, constituting the Materia Medica; as well as general and special Pathology; must, each and all, be investigated thoroughly as the preparatory or scientific part of the course. And this should be done in a liberal spirit, because they are branches of liberal learning, and because all useful knowledge is ennobling and exalting; and not simply because there is a connection, more or less intimate, between certain portions of these sciences and the practical arts whereby one may earn his bread. I would not that the ever-recurring query of a narrow mind, "To what *use* shall this portion of science be applied?" should ever be heard in reference to any acquisition men can make which throws light upon the mysteries of nature. Let no one be so extremely solicitous lest he should gather a superabundance of intellectual fruits and therewith over-distend his storehouse of knowledge; but rather let him fear lest in some time of famine and of direst need he should percuss his granary in the upper loft and find it quite too *resonant*.

An acquaintance, too, more or less extensive, with the two mother languages of antiquity, commonly, though erroneously, called the dead languages, for they still speak through their living representatives all over two continents, is an acquisition which cannot be too much coveted by him who seeks to become an enlightened physician.

It gives an insight, as nothing else can, into the true force and significance of a multitude of words we meet on every page of the literature of our own language, especially if of a professional sort; in addition to the very great advantage it affords in unfolding the definitions of the already burdensome and ever growing technology of our profession. Besides its manifold uses in professional and general reading and conversation, it is an intellectual accomplishment calculated to give dignity and currency to its possessor everywhere whether in the profession or out of it.

When by several years of patient and assiduous study the mind of the learner has become thoroughly imbued with the principles of science, especially those of the branches above enumerated, he should pass to the consideration of the more

practical and artistic rules and maxims of the course. He finds here treasured up for his instruction a vast amount of useful information, derived from actual experiment and real practice, which he could never have drawn from scientific principles. It consists in a faithful record of the observations, hints, and statements of experienced practical men, which should be superadded to all that he has been able to learn from science, properly so called. This is the empirical part of medicine, though seldom understood by those commonly called empirics, for they are usually ignorant of all sorts of knowledge. It is a highly useful and even indispensable adjunct to a scientific course of training; but should never be allowed to take its place. Though not dependent on science, it is always in subjection and subserviency thereto. It never dares to question or to contradict her principles or rules; but only furnishes some rules of its own, found to hold good in actual practice, when the light of science does not or cannot guide us.

I know it is maintained by some that *all* medical science is empirical; and therefore that all doctors are practising empiricism. We may admit the truth of this statement by giving such a definition to the term as will justify its application not only to medicine, but also to nearly all sciences. We may say without violence to the original significance of the word, that Natural Philosophy, Geography, Botany and Geology, as well as Anatomy, Physiology, Pathology and Chemistry, are all *empirical*, since they are all based and built upon actual trial and experiment, and not on abstract intellectual speculations. In this sense, all natural science, and of course all medical science, is empirical; that is, experimental, or such as must be made out and maintained by actual trial.

But this is not the sense in which the word is understood by the people at large. An empiric, in the popular acceptation, is a quack. He is not a man who practices in accordance with the principles of experimental science, but who practices without *any* science at all. Medical empiricism therefore consists, practically, in prescribing for disease with-

out a knowledge of its seat, nature, and tendency, and of the powers of the remedial agents employed to arrest it.

What is intended, then, by saying that there is a portion of medical study and practice which may be denominated empirical, is merely this; that in some branches of professional study, especially in surgery and midwifery, there are many practical matters which can be really learned only by executing them. This is just what might be reasonably anticipated. Manual skill and dexterity require manual discipline and exercise, and can no more be attained without it than can intellectual growth without intellectual exercise. Neither can the cultivation of the mind educate the hand, nor *vice versa*.

One cannot learn to play well upon a musical instrument without actually fingering the keys, however well he may understand the science of music and however nicely discriminating may be his judgment.

Besides the merely manual operations in professional practice which require a manual education, it is not to be denied that we include in the empirical part of the course something more. There are some diseases whose nature and seat are so imperfectly understood that we are still under the necessity to contend with them in a manner somewhat different from that indicated by the scientific tactics of the art. Not that we have here no rules for our guidance, and are left to mere haphazard experimentation. Our course is often as clearly marked out, and our success quite as sure here as in any portion of our practice: but the *reason* for the rule we follow is not obvious. The rule has been discovered by practice, not deduced from the nature of the case; it is therefore empirical and not scientific. But even here, while treading upon the dark and unexplored boundaries of an unknown land, inhabited only by wandering tribes of quacks, the true physician will always find some Polar Star in his intellectual firmament to guide his steps; so that they will not, like the trace of the Israelites in the desert, continually return upon themselves in endless cycles and epicycles. And when perchance left for a moment completely in the dark, even the guess of

the intelligent and shrewd is more reliable than the deliberate judgment of a fool.

The study of medicine, when pursued in the manner and spirit indicated above becomes, as it was among the ancients, and as it should ever continue to be, only a part of a liberal and comprehensive scheme of general education. It is intended and adapted to prepare a man for the investigation of truth and of nature, in all their forms and ramifications; and to enable him to make a useful application of all his acquirements, for the advantage and advancement of the race.

But it must be confessed that medicine, like christianity, though *professed* by multitudes in both hemispheres, is really understood and practically illustrated by very few in either. Its professors too, like those of the christian religion, have committed and are still committing abominations nameless and numberless, all of which are baptized into its own immaculate name. Who shall undertake to enumerate even, all the protean phases of learned and unlearned charlatanry?

Let a man count the stars and number the grains of sand on the sea-shore before he attempts to exhibit all the disguises and machinations invented to take advantage of human ignorance, prejudice and superstition.

But shall the true physician condescend to mingle with the despicable rabble which seeks by such means to enhance its accursed gain and fame?

The doctor, as his title implies, should ever be the teacher and therefore the pattern for his fellow men. Of course he should endeavor to be competent to teach, not medicine merely, but all useful learning and accomplishments. He should be a gentleman and a scholar, as well as a physician, if he would win the approbation and respect of the refined and intelligent; for these will hardly consent, even to be relieved of their pains, by the hands of an unlettered boor. Occasionally, it is true, we see a kind of professional monster, with a commanding genius, almost entirely destitute of all science and moral cultivation; but we only endure such a man, as we do a severe surgical operation, for the sake of the benefit that may result therefrom.

Finally, young gentlemen, would you establish an enviable reputation among your fellow men for skill, intelligence, and real worth? I can give you no better direction than this:

Be really skilful, intelligent and worthy, and you will, sooner or later, be known and acknowledged as such. *To seem to be* what you are not, is a lesson hard to learn and difficult to practice; while it requires no effort or education to appear yourselves. The sun in the heavens warms and illumines not because it *strives* to do so, but because it is *full of light*.

Look upwards for your example.

ART. II.—*The Essentials of Inflammation.* By F. CARTER, M. D., Professor of Obstetrics in the Starling Medical College, Columbus, Ohio.

In undertaking to give our views of the nature and mutual relations of phenomena so complicated, and in which we are so liable either to confound the relations of cause and effect, or on the other hand, to attribute such dependency to the occurrence of actions which are merely coincident, we feel to the fullest extent the difficulty of saying so much as is necessary, and yet of confining ourselves within the limits prescribed to such an article; this is enhanced by the fact that there has been much written by very able men upon the same subject, each one of whom has advanced views differing in some respects from those of the others; it will be impossible to note and controvert those opinions except in a few instances, when it may become necessary, as incidental to the expression of our own.

We find ourselves under the necessity of continuing with remarks referring to subjects, the appreciation of which would seem to be indispensable as a preliminary.

First, as to the nature and properties of the materials implicated in the production of the phenomena of Inflammation.

These may be conveniently divided into three classes. 1st. Those which are without the vascular walls. 2nd. Those found within the vessels; and thirdly, the vessels themselves.

The first class, as indeed the others also, consists of materials in

two widely differing conditions, viz. the living and the dead. The first capable of exerting a vital force, the second, inert; though capable of being acted upon by vital, as well as merely chemical forces.

These last again are presented under two aspects; in one case as acted upon by vital forces, which control their condition; in the other, subject merely to ordinary chemical changes.

With reference to our present purpose, we however form but two groups of the whole, viz: 1st, material which has lived, but is now dead, together with that which has been caused to assume a certain condition by forces emanating from the then living parts; and 2nd., material still alive, with structures, the organic condition of which is *yet maintained* by forces emanating from the truly living matter. In the first category we place cells whose nucleii or germs are dead, and cell products of all kinds which have ceased to be acted upon by a living germ in some form. In the second, cell germs or nucleii which are yet living, that is, maintaining their own existence and molecular state in contravention of ordinary chemical affinities with such cell structures or cell products as are influenced to adopt and compelled to maintain a certain condition by forces emanating from those living germs or nucleii.

It is sufficiently evident that a wide difference must exist in every point of view, between these as component parts of the animal structure; the one, under the dominion of vital forces is continually demanding nutriment, or material for its increase or renewal, assimilating and appropriating such material for its own purposes, while it is maintaining that "assimilation" and "organization" against the power of ordinary and antagonist chemical affinities; the other has passed from under that control by the death of the germ or nucleus in which the force resided, and now waits but the action of a solvent to digest, on the one hand, or of an equivalent of oxygen to combine with some of its elements and thus disintegrate it, on the others.

It is certain that in the economy of nature every thing living must have a term to its life, and equally so, that those parts of an organized body which perform functions (vital offices) do so in virtue of the *active vitality or life* of the minute organisms which essentially

compose them;* having contributed its share to the performance of the function, that is, lived its individual life, the removal of each of those organisms becomes necessary to the life of its successor. This may be effected in one of several ways, as on a free surface, by the bodily removal of the perfected organism, an epidermic or epithelial cell, for instance; by digestion in situ, and removal as dissolved, or by lymphatic absorption, as is probably the case with much of the fibrinous material; or, lastly, by chemical change implying more or less of disintegration and recombination, whereby the new product having an affinity, chemical or endosmotic, for some of the constituents of the blood, is absorbed into and carried away by its current.

In one or other way, the dead material must be removed, or normal life of the part cannot continue; we say the *normal* life, for it would seem that one form of life may and often does really succeed to another, pathologically or physiologically, as the case may be, but in either, the second deriving its nutrition from the debris of its predecessor.

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*Offices are fulfilled in the economy of nature by the agency of structures or organs which only subserve their purposes when nutritive change in the essential parts, its actual life, is ended, and a very partial vitality or life, so far as regards the whole structure, is maintained for the mere purpose of reparation or extension. Of this class of organisms are the bones, tendons, hairs, areolar tissue, &c., &c., which do not subserve their ultimate object until they cease to change, and then perform it well in proportion as they or their constituents are inert.

A function we conceive to be always performed, during and by means of, the actual vital activity of the organ destined to that object. We look upon the performance of a function as a vital act, in centradistinction to the fulfilment of a physical office. With the performance of the function to the extent of the capacity of any one or more of the essential components of the organ, must terminate the life of such component part or parts, for that life is comprised in the preparation for, and ultimate performance of the function—they have no other way to live,—to act—and if they cannot act, they are dead, and should make way for their successors.

We look upon death, natural death, in a part, then, as being consequent upon perfected life, exhausted vital activity, or, otherwise, the full performance of a vital function, and totally disagree from the opinion, even as regards the nervous and muscular structures, that, their every operation "requires as its necessary condition, a disintegration of a certain part of the tissues, probably by their elements being caused to unite with oxygen;" (Carpenter,) and again, "the manifestations of the muscular and nervous powers of animals, appears to be dependent upon the union of oxygen with the elements of their tissues," (Carpenter.) Or in other words, that the function is, (in those cases at least,)performed by the organ, or part of it, subsequently to its death, and by reason of its disintegration, the function would thus be, not a vital, but a chemical result—its performance the consequence of death, rather than as we suppose, an act of life, the completion of which completes life, ends all vital capacity, even that of conservation, and leaves the material in a fit state for disintegration, which shall be determined by the presence of oxygen.

It will be at once conceded that the chemical and mechanical changes indicated may be facilitated or obstructed, by the perfection in which the conditions essential to them, as of heat, &c., &c., may happen to be supplied; it is no less true that vital activity may be depressed below, or stimulated above the normal standard, with regard both to time of maturity and perfection of the product in its essential properties. Various changes resulting in the undue development of some of those properties, may also be induced by the inordinate action of apparently very diversified agents, or by the introduction of new conditions: there is, however, a material difference in the extent and duration of effect produced by the action of such modifying conditions upon inert, as contrasted with the living material; the action upon the former determines with its actual operation and is commensurate (within limits) with its intensity, while the effect upon the latter is often extended to their successors, or descends to their offspring, (according to the mode of reproduction,) modifying the vital properties long after it has itself passed away, and acting in proportion rather to the vital power of resistance or of response existing at the time of its operation, than to the degree of its own intensity; in other words, there is always in reproduction a tendency to the propagation of individual peculiarities, no matter how induced, which shall be manifested until encountered by the induction of another and incompatible one, or until it is, as it were worn out—bred out—by the inherent disposition to return to the normal condition of vitality. There would seem to be two laws of reproduction, a greater and less, one by which like produces like after its race or kind, this is in response to inherent created properties, and approximates each individual to the standard of the race, the other ordains in the offspring a reproduction of the individual peculiarities of the parents, and in so far, a departure from the standard of the race, but in as much as this derives its force from the action of mutable and often evanescent causes, it can but contribute with unnumbered other agencies of the same class to the production of *individualities* as endless as the generations of the species; we have then, a fixed, created standard for each species, of which each individual is a modification; the creating force is constantly operating in every act of pro-creation—it may be overmastered, indeed, so as to bar its effect and stop organization—but cannot be specifically changed. The limits of the species represent an orbit, within which the individuals must ever revolve, and as perturbing forces are re-

laxed, the changless law of attraction to the centre—to the standard of the race is manifested.

If these be truths as respecting the compound organisms which we are accustomed to regard as individuals of any of the various species of animals or vegetables, they are no less so when applied to each of the several organs constituting in their aggregate such an individual, or yet farther, to the minute, and to some extent independent organisms, the aggregation and proper disposition of which, in fact constitutes an organ of the composite individual.

These considerations, however tedious, will be found, we think, indispensable to a full understanding of the physiological and pathological conditions obtaining in an inflamed part.

Of the second class of Materials, those within the vessels, we shall only speak of two, the red, and the white, blood corpuscles; both of these we regard as true vital organisms. The office of the former seems to be principally, if not altogether, connected with the preparation and conservation of their peculiar secretion, Hematine. This substance is of value in the economy from the peculiar (chemical ?) affinities which it manifests; having a certain capacity for Oxygen it transports that material within reach of the effete matters existing in the penetralia of the system, the Carbon of which, released from the controling influence of the living cell germ, has now a still greater affinity for Oxygen than the Hematine has.

The Hematine is also capable of absorbing carbonic acid in large quantities, but only in the absence of Oxygen, and having parted with this for its destined union with the carbon, it receives the gaseous compound resulting, transports it to the respiratory surface, where coming again in relation with Oxygen, the force of the superior affinity prevails, carbonic acid is set free, and diffused in the atmosphere, while Oxygen is absorbed to be transported to fresh effete material, which through this agency becomes chemically disintegrated and made capable of removal, partly as we have indicated, the rest entering into various compounds, water, or substances soluble in water, as the nitrogenized constituents of urine, &c., &c.

That the true seat of all or nearly all the chemical transformations occurring in the system, whether for elimeniation or calorification is in the solid tissues and not in the current of the blood, we have much reason to believe. So far as the effete matter is concerned, we think there can scarcely be a doubt of it; hence it is absolutely necessary to the performance of any function; in other

words, to the continued life of the part, that a due supply of Oxygen should be furnished to replace that which the vegetable vital force had separated from the carbon for the formation of the first organic compound; no otherwise could disintegration and removal take place, and in proportion as this is more or less rapidly accomplished will the vital activity of the part be exalted or depressed, all other conditions of life being adequately supplied.

It is supposed by some that Oxygen is a direct stimulant; it may be so; an indirect one it certainly is in furnishing the means for the disintegration of effete matter, provided the results of that decomposition be removed; not otherwise however, for if they are left, life is still precluded.

It would be tedious, and we think unnecessary, to enter into a discussion regarding the primary functions fulfilled by the "white corpuscles," that they are principally formed of nutritive material destined to be the aliment of other organisms, and that in thus using they change, or "assimilate" the material. Most will, we think, concur with us in believing from the evidences and probabilities adduced in support of that view by Carpenter, and others. We agree, also, in opinion with some good observers who can discover no radical difference between them, that the chyle, lymph, mucus, exudation, and pus corpuscles are merely modifications of the white corpuscles, induced by circumstances attending their development. Nor are we disposed to stop here, for we think there is good reason to suppose that they are, so to speak, the parents of all the more permanent, and many of the evanescent tissues of the body; even in cases apparently exceptional, we think they stand in the same relation, once or twice removed. Our space will permit but little reasoning, and scarcely more than a passing mention of some of the more relevant facts upon which this opinion is founded; indeed, here, as throughout, our purpose is more to suggest than to demonstrate.

[TO BE CONTINUED.]

ART. III.—*The Hepatic Origin of Consumption.* By W. HENDREN, M. D. Delaware Ohio. Read before the Delaware County Medical Society, and published by their order.

The origin of Consumption may be traced to a variety of cause; but in my opinion, there is one, which, from some obscurity escapes the notice of the Physician: viz. *Hepatic.*

From the influence of our climate on the Hepatic system—the *malaria* generated during the warm months of the year—the freedom with which our inhabitants indulge in *animal food*—and also from the still extensive indulgence in *intoxicating drinks*, the Hepatic system is sooner or later seriously deranged.

This system, it must be admitted, is of great importance in the animal economy; and it is admitted that there is a direct sympathy between it and the Respiratory system. When the Hepatic system becomes deranged, the secretions generally are more or less in a morbid condition; the Skin, Kidneys, and in the female, the Uterus, all feel the unhealthy influence. The cutaneous exhalents of the whole surface of the body contract, become dry, and fail to perform their proper offices, the effete matters of the blood are not thrown off, as nature designs, and the blood retreats to the internal organs. In this condition the lungs cannot fail to feel the influence, as their chief office is the purifying of the blood, by the diminution of carbon, in order that it may be in a proper condition for maintaining the healthy condition of the various organs in the performance of their proper functions.

When the liver is in a healthy condition (presuming the other organs to be in the same state) the process of digestion goes on harmoniously, giving vigor and animation to the whole economy; the portal circulation being normal, the life giving fluid flows directly to the heart, from thence it passes to the lungs, where it is to undergo purification. But let us consider the influence which positive Hepatic disease has upon the lungs generally. The lungs not only have to make an unnatural effort to throw off the increased quantity of effete carbonaceous matters from the blood, but the morbid condition in which the skin is left from the derangement of the liver is extended to the mucous lining of the bronchi and air cells of the lungs. This lining membrane being merely a reflection inwards of the skin, though far more delicate, is at once thrown into a state of irritation or inflammation. The lungs are required to perform their proper office of expelling carbon and admitting the Oxygen of the air to pass through their very delicate parietes, to enter the venous blood for the purpose of changing it to pure arterial. Instead of the lungs obeying this, which they cannot fully do, they commence secreting mucus from the lining membrane of the air cells, for the purpose of relieving the morbid irritation or inflammation, there established.

This is the effort of nature to relieve herself—in this condition the health of the lungs cannot be properly maintained.

They are not in a condition to nourish themselves, much less to fight the battles of their neighbors. Thus while the *"vis medicatrix"* is exerting herself to obtain relief, she is all the time *assiduously* laboring for others, while the enemy is multiplying his forces upon her. How then can she relieve herself unless the other organs are relieved? If remedial agents are not brought to bear upon the other deranged functions, this morbid condition within her delicate cells must of necessity go on increasing in extent and violence. This secreted mucus becomes thicker and thicker, and still more decidedly irritating in its character—exciting cough and deranging respiration.

The air cells are proved to be extremely thin, elastic and delicate, from the fact, that when the bronchi are thoroughly injected with wax, the whole cellular structure presents the appearance of a concrete mass. Viewing them, as we should, with an eye of discrimination, and striving to investigate the true pathology of disease, we must take into consideration, first: that the lining membrane of the air cells of the lungs, as well as the bronchi, are a reflection inwards, or a continuation of the skin through the whole structure: secondly, that the lungs are principally supplied with nerves from the par vagum, and great sympathetic. The liver and stomach also receiving, as they do, considerable nervous influence from the same source, must have an effect upon these organs. Thirdly, that unless nutrition is supplied in proper quantity, and quality, which cannot be the case, unless the liver secrete properly, and sends to the stomach healthy bile; in which latter organ the food when received, must undergo certain changes, before it is fit to be received into the small intestines. Fourthly, if the functions of the liver are deranged, the food is imperfectly digested, and in this state is received into the small intestines, and exposed to the action of the lacteals and absorbent vessels. Portions of it are taken up by them, and through the medium of the *Thoracic Duct*, and are transmitted to the blood for the purpose of supplying nutrition to all the vital processes of the body. This blood, far more impure than nature, in her natural state designs it to be, is thus received into the lungs, to undergo the process of purification. In this state of things, the lungs are required to do more than nature designed for them even in health. How, then, can decarbonization, and respiration be normally performed,

when, previous to this the air cells of the lungs are suffering from a morbid irritation or inflammation induced by the deranged exhalents of the skin.

Now, then, we have a broad foundation for the subsequent, and sometimes speedy development of Phthisis Pulmonalis, in proportion to idiosyncracies of the individual thus affected.

Again, physiology teaches, that when one organ is diseased, that this disease is disposed to extend to, or attack those organs first, for which the affected one has the most direct sympathy.

If, then, Anatomy, Physiology, and Pathology are well understood, and brought to a practical bearing in the sick room, the physician can guard with a watchful eye, and frequently shield from danger, the organ, or organs most likely to become next affected. The importance of thoroughly understanding the Anatomy and Physiology of the whole Hepatic system, is known and felt by the best Anatomists and Physiologists of the present day.

During my last course of attendance at the Ohio Medical College, Professor Shortwell, the very able, and eloquent lecturer on these branches, (and whose memory is dear, I have no doubt, to all his pupils,) whilst demonstrating the arteries and veins of the abdomen, generally came to a pause, and then, before recapitulating, made the following impressive remarks:

"There is one system to which I wish to call your special attention, and what I now say, I wish you all to remember: The portal circle, or Hepatic system, which I shall now describe minutely, is one of paramount importance. The great frequency in this climate, of functional derangement, and organic lesion of some portion of this system, the numerous direct and remote sympathies of this with other organs, and structure of the physical economy, the respiratory, nervous, urinary, cutaneous, absorbent, &c., are so great and important, that I hope no student will disgrace the Ohio Medical College, by leaving it without thoroughly understanding this subject."

In the latter part of October, 1851, I was called to see a lady thought to be on the decline; or in common phrase, running into the consumption. Her husband told me she had recently lost a sister with the same named disease. That she had attended upon that sister a great deal; often slept with her, and most deeply felt her loss, and gave me to understand that she believed herself doomed to a similar destiny.

She had been troubled for three months, or more, with a hacking cough, &c. On examination I found the following symptoms: a dry cough, with the exception of some little expectoration in the morning; at times some difficulty of respiration, especially when an attempt was made to take a full respiration.

There would be a *catch*, and considerable pain in the region of the Pleura Pulmonalis, and Costalis, with soreness on pressure in this region, also, on the right lung, liver, and occasionally the pain extended up the right shoulder, and between the shoulders. There was one peculiarity about this case; the patient complained of pain and soreness in the right arm, along the track of the deltoid biceps flexor cubiti, triceps extensor cubiti, and bracnialis internus; and then, by a critical examination over the right lung, I found soreness, but not enough to justify the conclusion that this was the principal seat of the whole difficulty. I found, on passing my fingers over the track of the pectoralis major, that it was quite sore. The right arm seemed weak, and the muscles somewhat shrunk; the voice was weak, and slightly hoarse; bad taste in the mouth; appetite capricious; symptoms of imperfect digestion; skin slightly dry, but looked nearly natural.

After deliberating upon the case, I came to the conclusion that the original difficulty was in the liver, and stated my opinion to them. They seemed much surprised, but after giving my opinion, and reasons fully, the lady seemed partially convinced; and when I told her I thought her case curable, she seemed encouraged, and desired me to treat her case, as her previous medical attendants had made her believe the difficulty was altogether in the right lung.

Their remedial agents had failed, of course, to produce any beneficial effect, and she was anxious for the treatment to be changed. She would not be fully convinced but that she had symptoms of Consumption, and stated that unless she should improve soon, her husband would take her to a Water Cure Establishment.

I put her upon the following prescription:

Comp. Ext. Colocynth	1 ℈,
" Blue Mass	1 "
Pulv. Sang. Canadensis	1 "
Aloes, Socotr.	1 "
Pulv. Ipecac.	20 gr.
Tartar Emetic	10 "

Made into pills of common size, to be taken two every night, or

every other night, according to the effect upon the bowels. I also prescribed as an expectorant, *Pol. Senega.*, and *extract of Liquorice*, made into a syrup, one fluid drachm to be taken three or four times a day. I also ordered counter irritation over the region of the liver, and a stimulating liniment to be applied to the arm.

She soon commenced improving under this treatment, with an occasional change, as her symptoms seemed to indicate. Occasionally in place of the pills I gave her an alterative of *Hyd. Sub. Mur.*, and after the secretions were pretty well established, mild tonics and proper diet.

She recovered in the early part of the winter, and has since enjoyed good health, and for the last six months has done a great deal of hard work. During all this time she has been free from cough, and says her health is better than it has been for some length of time.

I have since had two cases; both females, similarly affected, with the exception of pain in the arm, and some uterine difficulty. In both the catamenial discharges were irregular, and sometimes nearly suppressed; and in one case much coldness of the hands and feet even in warm weather. One of these cases I attended in February last, in Berlin township. I found her very weak and dejected, having, as she stated, been confined to her bed for thirteen weeks. During this time she had been under the treatment of a young physician of that vicinity.

Having formerly attended upon herself and family, when I was practicing there, she desired my attendance. When called I found great derangement of the secretions generally, and especially the Hepatic system, with a bad cough, &c. I put her upon alterative portions of *Sub. Mur. Hyd.*, and *Pulv. Ipecac.*, with counter irritation over the region of the liver and left lung.

Saw her again in three days; found her much improved; slightly ptyalized, though I did not intend it, but in three weeks from that time she was about her ordinary duties. I made but two visits.

I might mention many more cases of a similar character, treated in a similar manner, with happy effects; but will only advert to one; that was in my own person. Last spring I contracted a bad cold; bowels became irregular, and soon felt extremely unwell. I had a most distressing cough. Neither consumption, nor any scrofulous affection is hereditary in my family. I was not apprehensive, but attended to my business for some weeks in that condition; took occasionally a mild expectorant, with little benefit; (did not wish to take

much while riding.) On moving into a damp house I became worse, and was soon confined to my bed, with very severe pain in my right side, and over the region of the right lung, also some fever attending.

My wife became alarmed, and very judiciously sent for my esteemed friend, Dr. Williams, who had previously kindly attended upon me, and understood my constitution. He examined me, and with his usual discrimination soon discovered the true pathology of my case, which was some inflammation of the Pleura and irritation of the air cells of the lungs, with general functional derangement of the liver.

By prompt and energetic treatment, viz: venesection, a mercurial cathartic, with extensive counter irritation, followed by mild expectorants and anodynes, I soon recovered; whereas, had my case been treated entirely for affection of the Pleura and Lungs, without any reference to the biliary organs, I might now have been beyond the reach of medical aid.

Objections might here very naturally arise to my theory, viz: That consumptive individuals frequently go south, where Hepatic diseases prevail to a greater extent than in this climate, and get well. Sometimes persons going South in autumn, and remaining during the winter, are restored, or very much improved, while many die. Had they gone there in the spring, and remained during the summer, the list of mortality would in reason have been much greater.

Dr. Bell, in his practice, states that warm, Southern climates are never beneficial, unless digestion and proper nutriment are maintained. He recommends that in a sthenic state of the system, the individual to go farther north, especially persons in whom digestion is slowly and imperfectly formed.

It is stated by him, as well as by other eminent writers, that a change of climate from east to west, and from west to east, proves often beneficial, and sometimes performing a cure. He also states that much traveling, changing climate and scenery, whether east, west, north, or south, proves beneficial.

It is now conceded by many eminent writers, both in Europe and America, that the former sanguine hopes entertained by such individuals, and their friends, have not been generally realized. Exercise on horseback, or in a carriage, cheerful company, home and friends, with the attentions of one's own physician, often proves as beneficial, even more so, than change of climate.

My object in this essay is merely to bring the subject more directly before the profession; that by further discussion and investigation it may be more fully and generally understood.

[The following communication was received several months since. It should have appeared in a former number of the Journal, but being mislaid, it was overlooked, and for a time forgotten.—Ed.]

Art. IV.—*Remarks on Dysentery.* By Thomas W. Gordon, M. D., Georgetown, Ohio.

Coleitis, Dysentery, or *Flux*, as it is called in this region, made its appearance about the 10th of May, 1851, and increased in violence up to the last of July, when it again gradually decreased. It was mostly confined to neighborhoods along the streams.

In the county of Brown, the most severe cases occurred along the valleys of White Oak, Red Oak, Straight Creek and Camp Run, following the region most subject to Malarial, or Periodic disease. In very many of the cases that came under my observation, there was a periodic exacerbation, which was controlled by anti periodics, and not by other means. This, however, I have found to be the case with nearly every patient I have seen for the last eighteen months, let the disease be what it may. I have seen it in Pneumonia, Rubeola, Rheumatism, and in almost every case of febrile action. I saw several dysenteric patients who had a chill every day until the disease was controlled. Others with a chill, and sometimes a shake every second day; and again others not with regular chills, but *exacerbations* of fever, after more or less chilliness, coming on twice in the twenty-four hours. And again others, that remained without any increase of symptoms for thirty-six, forty-eight, or seventy-two hours at one time, and a shorter or longer period afterwards. In all such cases I used quinine. I did not administer it in a single case that did not improve under its use.

My general treatment was the use of Acet. Morph. in doses sufficient to relieve the pain and tenesmus; from one sixteenth of a grain, to half a grain from every half hour to every six or eight hours, with an occasional dose of Pill Hy. and Seidleitz Powders sufficient to cleanse the intestinal canal. In one case only did I use the lancet. In two or three I thought blisters requisite, and used them. I carefully avoided all nauseants, but used fomentations, Epispastics, Chlo-

roform, and Chloroform Liniment upon the abdomen and over the stomach very freely in all cases of gastric or illiac irritation.

When the attack was recent, with only three, four or five passages of the peculiar fleshy bloody stools of flux. More than half the cases yielded to Morphia Acetatis by the exhibition of from one to three grains in the aggregate; but after the irritation had ceased some twenty or thirty hours, I prescribed Pill Hy. ten to thirty grains, and one or two Seidlitz Powders.

It may be asked what is the modus operandi of the treatment; a question much easier asked than answered. But admitting that the animal economy has a tendency to eliminate disease, may we not justly suppose, that by allaying the nervous irritation, we may check the infiltration, and allow the eliminators of the system time to remove the cause. While the disease is confined entirely to the mucous coat of the intestines, there is but little pain; but as soon as infiltration takes place, and the nerves of sensation are pressed upon, or the mucous coat ulcerates and passes off, leaving the sentient nerves exposed, we have at once all the agony beheld in cases of dysentery. To relieve the irritation and distress was my wish. When I first administered the Acet. Morphia, I found that it not only controlled the pain, but the disease. Believing that by this course I assisted the powers of life to throw off diseased action, without diminishing the forces of the animal economy. I know that many highly recommend the use of nauseants, especially Ipecac., to act upon the eliminators of the system. No doubt they have been pleased with the action of the medicine, and I will not dispute with them about the comparative value of the different modes of treatment. I only say, in relation to the course pursued by myself, that I have been able to relieve the intense suffering in a very short time, and have avoided the distressing nausea attendant upon their mode of treatment.

I have had many reasons to feel pleased with the plan I have adopted; and I have no doubt that those I have attended, feel also well pleased, for no one of the many afflicted with dysentery, whom I attended during the prevalence of the disease in 1851, was compelled to "*bite the dust.*" And of the entire number, not one has been afflicted with chronic dysentery. Whether my cases were as severe as those attended by others, that I did not see, I know not. But I do know that I attended some thirty or forty cases that I considered very severe, and many more of a milder character.

The ages of my patients varied from six or eight months, to fifty-eight years. In some localities almost every person in the neighborhood was attacked with the disease. But as nearly as I can gather from the practice of others, there were more females than males who fell victims to the disease. More young than aged. No post-mortems were made.

Our soil is clayey and loamy, based upon the blue limestone formation. Water impregnated with carbonate of lime and sulphate of lime, and in some instances with magnesia, sulphur and iron.

The disease increased in violence immediately after rapid thermometric changes. During the time of its greatest severity the days were very warm, the thermometer ranging from eighty to ninety degrees Fahrenheit, and the nights unusually cold for the season of the year. There was in several instances, a change of from thirty to forty degrees in twelve hours. Weather generally dry.

ART. V.—*Gun-Shot Wound of the Heart—Death two weeks after the accident.* By R. C. HOPKINS, Cleveland, Ohio.

An Irish woman, on the evening of the 9th of Nov., 1852, received a ball, from a pistol, of the size of a No. 2 buck shot. When I saw her about ½ past 6, P. M., she was in a state of extreme collapse, the pulse just discernible, quick and fluttering. The external opening appeared between the 5th and 6th ribs, of the left side under the arm. A probe took an upward and slightly inward course when an attempt was made to introduce one in the course of the wound. Quiet was enjoined and a cordial administered. In the morning reaction had commenced. On the third day signs of Plura-pneumonia were apparent, which continued with increasing severity until the 23d of Nov., when she died, about 2 P. M., just two weeks, less by 4 hours, from the receipt of the injury.

The *post-mortem* was made 26 hours after death, as follows: Percussion over the chest gave a dull sound over the left side of the chest, including the entire sternum. When the sternum was raised the left cavity of the chest appeared full of bloody serum. The heart was pushed entirely to the right of the spine, and the right lung compressed behind it. The left lung was so completely hepatized as to sink at once when placed in water. The opening made by the ball into the chest was found between the fourth and fifth

ribs of the left side, about 2½ inches from the articulation with the cartilage. The fifth rib was fractured and a small piece split from its upper edge. This had the appearance of having caused all the trouble. The ball we found lodged in the apex of the heart, having penetrated so that when the left ventricle was laid open the ball was just seen protruding. No cyst had formed around it, and no other evidence of inflammation of the heart or pericardium was apparent.

ART. VI.—*Interesting cases in Operative Surgery.* By R. L. HOWARD, M. D., Professor of Surgery, &c.

CASE I.—*Ovariotomy in a young lady of 17 years, by a new method—Recovery.*—Miss R. J., æt. 17, of Franklin County, Ohio, consulted me in August last, on account of a tumor in the abdomen. She informed me that in March last she had an attack of measles and recovered from the disease without any unusual symptoms. In May following she experienced a pain in her left side which was persistent and crescent in its character. About the first of June she detected a "lump in the lower part of her bowels." This rather rapidly increased in size until the time of the consultation adverted to. On examination I found a regular oval tumor filling the whole cavity of the abdomen and distending to a considerable extent its walls. Obscure fluctuation revealed more or less fluid in the centre of the tumor. The hymen was absent, but the uterus was found, on examination per vaginam, to be in a healthy condition and unconnected with the diseased ovary.

On the 18th of September I visited Miss J. and found her laboring under considerable general disturbance and pain in the right side, apparently from the pressure of the tumor. Her pulse was remarkably frequent, beating some 130 to 140 per minute. The symptoms being of a distressing character, rapidly becoming worse, I, in consultation with Drs. G. W. and J Helmick, decided to tap the tumor. On introducing the trochar, about a gallon of very thick albuminous fluid escaped, which completely relieved the patient of all her urgent symptoms. She remained quite comfortable for about two weeks, when the rapidly accumulating fluid and the increase in the solid growth, caused a return of all the distressing symptoms.

On the 8th of October I tapped her again, drawing off about the same quantity of fluid, with precisely similar results; but in a few

days the tumor could be observed to grow from day to day, and it became evident that something more effectual must be done, if the life of the patient was to be rescued from the fatal result that awaited the progress of the disease.

On the 14th of October a consultation was held with the attending physicians adverted to, and several leading physisians of Columbus, all of whom, without a dissenting voice, approved of an operation for the removal of the tumor at once.

The proper arrangements being made and the patient placed upon a table and fully under the influence of chloroform, I made an incision from three inches above the umbilicus on the linea alba to the pubis, dividing the integument, facia, tendon and peritoneum. The ovarian tumor was fortunately found free from adhesions; but its attachments to the uterus, &c., were rather extensive. I now adopted an expedient to which is due, *mainly*, the success of the operation. Fearing the effect of the ligature upon the delicate peritoneum, I divided it completely around the neck of the tumor upon a grooved director. In the groove or channel made by this dissection, I applied the ligature, which sunk deeply and readily into the loose cellular structures as I tightened the knot, without impinging in the slightest degree upon the contiguous peritoneum. The neck of the tumor was divided about one inch from the ligature, and the wound dressed in the ordinary manner. The whole operation was performed and the patient placed in bed without the least consciousness of pain on her part.

Since the operation not an unfavorable symptom has occurred. The ligature came away and the parts healed kindly; and now, Dec. 9th, we believe she is perfectly well.

I had omitted to mention that the patient had several attacks of intermittent fever in August and September, and that she had not menstruated for near three months before the tumor was removed. I have not learned whether her menses have returned since.

I desire to call the attention of surgeons to that part of the operation wherein the peritoneum was divided for the purpose of excluding it from the action of the ligature. I am not aware that the operation has ever been performed in this manner before, and yet it may have been, as I have not, on account of the pressure of my engagements, made myself familiar with the literature of Ovarian Surgery. I deem this step in the operation worthy of the highest consideration, and considering the proclivities of the peritoneum to

inflammatory affections, particularly under the influence of mechanical injury, I am only surprised that this proceeding has not been universally adopted.

CASE II.— *Ovariotomy—Death on the 17th day after Operation.*— Mrs. H. M., aged 28, Franklin County, Ohio, after bearing her second child about five years ago, observed a small tumor in the left illaic region, which was unattended by pain or inconvenience. Three years ago in August last, she gave birth to a son, and third child. In January, 1851, she bore another son, her fourth and last child. Before her last pregnancy the tumor filled and distended the cavity of the abdomen. During and subsequent to pregnancy, however, she enjoyed very good health, suffering only from mechanical inconvenience. Subsequent to the birth of her last child her tumor grew more rapidly, until I saw her for the first time, in company with Dr. J. B. Thompson, her family physician, on the 29th January last. On examination per vaginam her uterus was found in its normal position and condition, but she nevertheless insisted that she was some five or six months advanced in pregnancy. Her reasons were that her menses had been absent during that period and that she could distinctly feel the motions of her child. Not being able to convince her of the propriety of drawing off the fluid contained in the ovarian cyst, I left her, and did not see her again until the 13th of August last. Of course she had abandoned the idea of pregnancy, and was willing to submit to the operation of paracentesis. This operation was not performed until the first day of September, when nine gallons of dark fluid was discharged. She was exceedingly comfortable and had a rapid recovery. After the evacuation of the fluid there was found a large solid growth in the abdominal cavity.

Oct. 14th, we tapped her again, and removed about eight gallons; and on the 26th, in consultation with her regular physician, and several other eminent physicians of our city, we proceeded to perform the operation of ovariotomy. The patient being placed upon a table, under the influence of chloroform, I made an incision from near the umbulicus to the pubis. On reaching the tumor its surface was found firmly adherent to the abdominal peritoneum. The adhesions were broken up from four to six inches beyond the boundaries of the incision. Being now persuaded that adhesions were general, and perhaps universal, over the entire surface of the tumor, I abandoned my efforts at separation—removed by excision a portion of

the ovarian cyst, introduced a tent made of lint through the opening into its cavity for the purpose of preventing closure, dressed the wound by sutures and adhesive strips, and placed the patient in bed.

The shock of the operation was but slight, and she soon became comfortable. For several days she suffered but little, but a low form of inflammatory action attacked the tumor and peritoneum. The discharge became intolerably offensive, and under its influence she gradually sunk, until the 17th day after the operation she died apparently from exhaustion.

Case III.—*Spina Bifida of the Occiput—Operation—Death.*—E. F., aged 7 weeks, of Franklin County, was brought to me about the 10th of Oct. last, by the mother, to consult me respecting a tumor upon the occiput about the size of a turkey's egg. The tumor, situated just at the junction of the hairy scalp, with the nape of the neck in the median line, was elastic, fluctuating, and free from inflammatory action. I suspected it to be a case of spina bifida, but could not *detect* any connection with the cavity of the cranium. I punctured the tumor with a cataract needle and avacuated a few drachms of serum. In a week after I punctured with a small bistoury and evacuated about two ounces of fluid. This was followed by no local or general disturbance whatever.

On the 26th of Oct. the child was brought before the class of Starling Medical College, where I proposed and performed the following operation:

The tumor was transfixed with a large bistoury, and divided into two nearly equal parts to its base. The serum it contained at once escaped, and I found an opening into the cavity of the cranium through the occipital bone just posterior to the Foramen Magnum, and apparently continuous with it. I now cut off the flaps which formed the walls of the tumor, but left enough to cover the opening. I then dissected out the meuinges, (dura mater and arachnoid) down to the very orifice in the bone, and brought the lips of the wound together with stitches and adhesive strips. The child during the operation became pallid, extremely prostrated, and showed signs of approaching dissolution. As soon as the strips were applied I directed the mother to take the child to my private room to give it air, and to remain until I should get time to dress the wound.

Frightened out of her senses, she escaped from the Institution in a moment, like a bird from its cage, and declared that her child

should never die in the college. Not knowing where she stayed in the city, I was entirely unable to find her, though I sought her diligently.

In the evening the father of my little patient made his appearance, and requested me to visit her. I learned that soon after they left the lecture room the child was attacked with convulsions, which recurred frequently through the day. Serum also flowed freely through the wound. I ordered water dressings with mild purgatives of calomel and castor oil, and absolute rest. The child, though suffering from occasional convulsions, began to improve, and continued to do so for three or four days, when its mother determined to leave town; and, notwithstanding my objections and entreaties to the contrary, she did so, and went nine miles to her residence in the country, where she remained several days.

In about ten days she made her appearance at my office, with the child still alive, in her arms, but considerably emaciated. The convulsions had pretty much subsided, and the serous discharge had ceased. I endeavored to persuade her to remain in town a week or two, but she resolutely expressed her determination to return that night. I remonstrated, and assured her that she would remove all hope of recovery by such harsh and unnatural treatment. She replied with the utmost vehemence: "An' sure the baby *could not* be kilt, since the poor thing was not kilt on the day of the operation." She expected the child would die, but she was perfectly sure it coult not be *kilt*. On the next day after her last visit to Columbus, as might have been anticipated, the child died. I had no opportunity to make a post mortem examination.

This operation was performed under the most unfavorable circumstances. Its age, (seven weeks) and the rude management it experienced from its mother, were enough, *together*, to insure a fatal termination in any similar case. I am of the opinion the child would have recovered, with tender and careful nursing.

CASE IV.—*A Large Thimble in the Posterior Nares, which for some time escaped detection.*

A little boy, aged two and a half years, whose name I do not now recollect, was brought to me from Pickaway county, about four weeks since, for advice. The father informed me that about two weeks previously the little fellow had swallowed a thimble, or rather,

that a thimble had accidentally passed into his fauces. His mother, alarmed at the symptoms of strangulation produced by the foreign body resting upon the glottis, passed her finger into his throat, and in her endeavors to secure its removal she felt it distinctly glide upwards behind the palate. The boy now breathed again with perfect ease, but being certain of its lodgment in the part alluded to, she applied to a physician, who, on examination, could not detect its presence there, and expressed his opinion that there was no foreign body in the Nares. Another physician was consulted, who advised that the child be brought to me.

On examination of the fauces, I saw no indications of a foreign body. They appeared in a healthy state. The articulation, however, was abnormal. He spoke like a child with a cleft palate—the air passing freely through both nostrils. I passed a blunt hook through the mouth into the posterior nares and detected nothing like a foreign body. I then passed a probe through both nostrils into the fauces with similar results. Convinced that the thimble was still in the nose, I passed a large silver female catheter through the right nostril, and keeping the extremity firmly pressed against the side of the posterior nares it distinctly struck a solid foreign body, which, with considerable difficulty I pushed downwards into the fauces, when the child retching violently, threw a very large steel, brass bound thimble from his mouth. It seemed that the cylinder of the thimble, open at both ends, was lying parallel with the posterior nares, and firmly inpacted within them, the air passing freely through this metalic tube. Its continued presence must have produced the most disastrous consequences.

ART. VI.—*Reproduction in Solution of Continuity.* By A. G. STEVENSON, M. D., of Franklin co., O.

I transmit the following account of a case during the treatment of which, although there was no particular surgical skill exhibited, yet the nicety and perfection of the reparative process of nature were singularly manifest.

Daniel Chapman, a young man of 18 years, was brought into my office in a half fainting condition, with his right hand badly injured by falling on a circular saw in rapid revolution. Upon

removing the rude dressings, which had been hastily applied to it, I found that the teeth of the saw had entered the outer edge of the hand, passing through the 4th, 3rd, and part of the 2d metacarpal bones, severing the flexor and extensor tendons and the nerves accompanying them. The amount of blood lost, and that continually flowing from the wound, led me to suspect that one or more of the palmar arteries had been divided, and upon examination, the palmar arch of the ulnar artery was found to be completely severed. The divided extremities having considerably retracted, I deemed it more judicious to arrest the hemorrhage by compression, rather than to protract its continuance by perhaps a fruitless search for the retracted extremities, and proceeded to place a number of small vial corks over the ulnar line of the artery, binding them down firmly with a roller wet in alcocol. This had the desired effect; the bleeding gradually ceased, and my attention was given to the widely gaping wound. The probe came in contact with several splinters of bone, which with some difficulty were detached from their adhesions, and a quantity of saw dust was removed from the interior. The edges were then drawn together by strips of linen, fastened to the adjacent skin with collodion, the hand bound securely in one of Goodwin's fore-arm splints, a compress wet in cold water previously applied to the lacerated surface.

The patient returned home, and took by direction, Pulv. Dover, grs. x., to be followed in the morning by magnesia sulphat. ʒ i. The weather being extremely warm, some little erisypelatous inflammation on the third day, which, however, speedily yielded to the lotion recommended by Velpeau in such cases, (Vide Braithwaite, vol. xxxvii.) On the 10th and following days, to the 15th, a little suppuration was visible, owing to the particles of saw dust which had become imbedded in the wound at the time of the accident. This soon disappeared, and was succeeded by a broad cicatrix, which caused some indentation on the ulnar edge of the hand. At the end of five weeks, the metacarpal bones, the tendons, nerves, and vessels, which had been so rudely severed, had become united, and not only full action was completely restored to the hand, but what I can hardly say that I expected, the sensation to the touch was as perfect as it had ever been—the only difference between the

two hands being, that the injured one is more sensitive to the cold than the other. The treatment in the above case was perfectly simple, and that which would naturally suggest itself to any one; but what is remarkable is, the brief period in which the healing process was perfected—the zeal and energy, if I may so speak, with which nature immediately began to repair the injury sustained, and the faithfulness with which the work was completed, and all the functions of the mutilated member restored.

PART SECOND.

AMERICAN INTELLIGENCE.

ART. I.—*Treatment of Dysmenorrhœa, by Mechanical Dilatation.* By A. T. NOE, M. D.

Dysmenorrhæa is, perhaps, the most common and most troublesome disease of women. Seldom, if ever, does it get well without appropriate remedies; often continues for many years, the subject thereof being emaciated, sickly, anxious, desponding, miserable. I believe that women of all temperaments and habits are subjects of dysmenorrhœa during their menstrual lives, and experience has taught me that many are affected from the very commencement of menstrual life.

I had treated many cases after the usual plan, giving opium, camphor, morphine, &c., in the paroxysms, and the volatile tincture of guaiac,, preparations of iron, &c., in the intervals, without curing most of my patients. I had read Dr. McIntosh's views and treatment, and concluded in a bad case I had on hand in 1848, if I could get the consent of the lady, to try his plan of dilating with bougies. I accordingly explained to herself and husband my designs, giving my authority, and reasoning with them *a priori*. They being intelligent persons, immediately gave into it. As I intend to give several cases, I will commence with this, my

1st Case. — Mrs. N., aged 26, had been married seven years without issue. Although I had been acquainted with her seven years, I had not been consulted in her case, nor had she been treated by any physician, notwithstanding she had been laboring under dysmenorrhœa from puberty. In 1846 I was requested to treat her case. I found her in the following condition: emaciated, complexion sallow, unable to walk two hundred yards, cold hands and feet, pulse about one hundred; menses irregular, exceedingly painful, preceded by pain in the back and womb, the menstrual period generally continuing a week or ten days. I could not learn that she had ever discharged anything "fibrous or shreddy," but small clots, preceded by "bearing down" pain extremely severe. She would scarcely recover from one period until another would come on, which, indeed, endangered her life.

Upon examination per vaginam, I found the uterus too low, amounting evidently to prolapsus. As the lady and gentleman were both anxious to have children, they requested me, if possible, to cure the lady; and as the case was an interesting one, and one I felt sure would add very much to my reputation as a medical man, I determined to spare no pains. I accordingly visited her very often for two years, using all the remedies common in such cases; at the end of which time the only improvement was regularity in her menstrual periods, without any diminution of suffering.

I now determined to try dilating the womb, after the manner spoken of by McIntosh. She readily consented, and I commenced ten days previous to the next mentrual period. Having never before attempted to perform such an operation, I found it much more difficult than I had expected, consequently I cannot say what the size of the os tinsæ in this case was. I commenced, however, with a silver probe belonging to a common pocket case, and evidently had great difficulty in introducing it, as much, I judge, from awkwardness, as from any impediment. I however continued my efforts daily for ten days, at the end of which time I was an adept in the operation.

Her next period was evidently shorter and less painful. Ten days previous to the next period I again commenced with a medium sized bougie, using a larger one every day or two, until I used the largest size, when, to my great consolation, she menstruated without pain; and in May, 1851, I had the pleasure of delivering her of a daughter, who, with its mother, is now enjoying good health, with

a fair prospect to have more. This lady had been married ten years and four months, and I am very certain would have been dead, but for the mechanical dilatation.

2ND CASE.—Miss J. F., aged sixteen, healthy, well-grown, menstruated at fifteen; discharges small and painful. When I saw her, a year after puberty, she was evidently laboring under dysmenorrhœa. Upon examination per vaginam, I found her uterus occupying its proper position. Very little tenderness. With some difficulty I succeeded in introducing a small silver probe. I continued the dilatation for ten or twelve days; the next period was evidently less troublesome. Commenced the use of the bougies ten days previous to the next period, when she menstruated healthy, without pain. She is now in good health, though not married.

3RD CASE.—Mary, (colored,) aged twenty; menstruated at fifteen, had Dysmenorrhœa at eighteen, is of lively, active habits; good health up to the time of the attack. I was consulted in her case some time in the latter part of last year. She is a favorite house girl, and I was requested by her mistress to cure her if possible, and as quick as possible. Upon examination I found that the menstrual period was preceded by severe pain in the back, head-ache, &c. (*No pain in the mammæ.*) The discharge was clotted, but not shreddy. She was pale and emaciated: pulse 100, small. She was ordered the hot hip bath, with ½ gr. opii., 2 grs. g. camphor every two hours. I visited her the next day; my prescription had done no good. I ordered ℥. Emetic in small portions, without relief. Nothing I gave relieved her. The attack now lasted her seven or eight days. So soon as it was over, I gave Dr. Dewees' celebrated vol. Tr. Guaiacum in the intervals, which was continued up to February, 1852, without the smallest relief. Indeed, the attacks were worse, lasting continually now two weeks.

I was sent for on the first of March last; found Mary laboring under a violent attack of dysmenorrhœa; visited her every day for two weeks, giving all the usual remedies; at the end of which time discharge stopped, and in a few days after the soreness, which was very great, subsided. I commenced the use of the bougie, using it every day and every other day, according to circumstances, until the commencement of the next attack, when she menstruated without pain and was well in four days, and is now better than she has

been in six months. I intend to use the bougie again a few days previous to the next expected menstrual period.

Since writing the above, I used the bougies, when she menstruated healthy, as has been perfectly well ever since.

Canton, October 1, 1852.—*Nashville Journal.*

ART. II.—*A Consideration of some of the Relations of Climate to Tubercular Disease.* By J. W. BURNET, M. D., Boston.

There are two prominent facts which have made the subject of the climatic relations of tubercular disease, one under active discussion among the medical men of this country and Europe during the last few years.

These are: first, the almost alarming increase of disease of this nature; and, second, the facilities of travel, so that climate can be easily and cheaply changed. The time has been when only a few thought about distant climate for health. But now, almost every one who at all values his life, can easily put himself in a more genial atmosphere and beneath an almost cloudless sky. With the attention thus directed, the questions are—*what* climate is to be sought; and what are the reasonable expectations as to its effect upon tubercular disease?

Of late there has been published quite a number of works upon the climate of those European and insular countries hitherto quite celebrated as resorts for invalids of this character; and, as the most dissimilar views have been advocated, there has arisen much confusion among medical men as to the correct answers of the questions above referred to. Some, in fact, have become thorough skeptics as to the benefit of any change of climate out of the latitude in which the invalid has been accustomed to live.

From among these works recently published may be mentioned two, viz., that of Dr. Pollock, appearing in the London Medical Gazette of last year; and that of Dr. Burgess, not long since separately published. Both are upon the climate of Italy, and are well calculated to lessen the enthusiasm of invalids for a land which has always been made more sunny by the pens of poets than the favor of nature. I have no doubt that the conclusions of these men, and especially those of Dr. Pollock, upon the climate of southern Europe, are correct in the main; and, as they are addressed to the English

people, will no doubt lead many English Physicians to hesitate before advising their ultimate migration.

But in this country, a misapplication and sometimes a misinterpretation of these and similar opinions, has led very many physicians to be skeptical as to the real benefit to be derived by northern invalids, from a change of residence into the southern and more sunny States. This skepticism seems to be yearly increasing—and there can be but little doubt that it as mischievous as it is really unfounded. It is certainly quite desirable that clear and distinct opinions should be entertained by northern physicians upon a subject fast getting to be one of such paramount importance. I make this remark, because I think that the reason of their doubts of climate influence, is plain; in other words, that the cause of their unfortunate experience is becoming well understood. It is, that the climate has not been thoroughly tried. To make a clear and full statement of the whole matter, I will say that I am convinced that the shifting migratory course, South in winter and spring, and North the rest of the year, usually advised and followed, is an erroneous and mischievous one; and that if a northern consumptive can reasonably expect any benefit from this change of climate, this benefit will be obtained only from a continued southern residence for several years.

There is a grave error in thinking that, if one goes South in late autumn, and remains there until late spring, and then returns North to pass the summer and early autumn, he keeps himself in the train of favorable climate influences. It is not so; and the error is concealed in the fact that a summer at the north does not make a southern climate. This leads me to some considerations upon the peculiarities and differences of the northern and southern climates of this country.

As to the New England climate, it seems quite clear, that, taken as a whole, there is something in it highly predisposing to the development of tubercular disease. Not only do we see this disease here constantly peering out from hereditary predispositions, but the cases are quite numerous in which it seems purely indigenous, being engrafted upon an untainted stock. It is true that this may be said of other countries having an intemperate climate, but very far from the extent of what I think is true in New England. Statistics can be produced to show, that, take the whole year through, pulmonary diseases—inflammation of the mucous membrane of the air passages—constitute a very large proportion of the disease. In fact the

tendency of disease here seems to be quite toward the pulmonary organs. Aside from the evidence of general observation, this statement has a very significant support in the fact, that in cases presenting some obscure aspects, the suspicion of the intelligent physician is quickly fastened upon the lungs, and an examination of the chest is made; thus showing that where outstanding local or temporary causes are absent, one is almost unconsciously led to suspect insidious disease referable to over-constant general agencies.

An unequal fluctuating climate, in any latitude, tends to produce these effects. But the climate of New England, besides having this inequality and diversity in a very marked degree, possesses other characteristics having a great influence. Its atmosphere is dry and stimulating, and during the greater part of the year of a low temperature considering the latitude. The effect of such an atmosphere upon a sound constitution is highly bracing, leading to a mental and corporeal activity quite inconsistent with endurance and longevity. It is probably not an incorrect opinion that many of the moral and physical peculiarities of New England people, included under the terms enterprise and action, may be traced to these agencies.

In such an atmosphere, the constant vicissitudes of the temperature render the functions of the skin imperfect, thus increasing the liability of congestions of the mucous membrane; and this mucous membrane, from the fact that it is ever in contact with an irritating medium, is generally that of the air passages. On this account, mainly, the urgency of these conditions is considerably lessened by the use of flannel next to the skin; the importance of which, worn in the summer as well as winter, is now well recognized.

On the whole, New England climate has little in it that is sedative at any long season of the year. The winters are broken and unsteady, especially so on the sea-board, and it is only in the northern inland portions that there is that constant cold which has a far more favorable influence. The character of New England spring weather is too well known to need comment. The months of May and June frequently change places, and one is not sure of warm weather until into July. As for the summer months, it is a great mistake, as I have before said, to suppose that they furnish a climate like that of the South. There is, to be sure, heat enough, but it is unsteady, and during July and August the thermometer not unfrequently falls 30 or 40 degrees in a few hours. Intensely hot as it is frequently in midday, yet at midnight, if one is exposed, it is rare that over-clothes are not more comfortable.

But a fact more significant than all the rest as to the influence of our summer weather, is that our consumptives do not generally improve in it; on the other hand, they lose ground. This is generally attributed to the depressing influence of the heat. No doubt there is much in this, for the heat is here often very intense; but more is probably due to the sudden and wide change of the temperature. That this is the correct version of the matter, would seem to be indicated by the influence of our early autumn weather, which is far the best and most genial we have. There is generally a season, commencing about the first of September, and continuing until the early frosts of October, when the weather in New England may be said to be truly fine. The atmosphere is warm and dry, presenting a hazy, quiet aspect, and the light wind is generally from the W. or S. W. It is then that we have those dreamy days that come and go so quietly as scarcely to leave a ripple-mark—reminding one of the sunny skies of the pine-lands of Georgia and South Carolina. Every one, and especially those of our cities, has felt the soothing, sedative influence of this weather.

It is well know that during this weather, our consumptive and other pulmonary invalids improve. The functions of the skin are more active, and the urgency of the cough and all the other pulmonary symptoms is decreased. In many instances the improvement is as unexpected as it is remarkable—and there is often a melancholy pleasure in thus observing the temporary improvement, brightened as it always is by the patient with a thousand delusive hopes.

This short season is the only weather in New England with which I am acquainted, that is really favorable to consumptive invalids. And in its favorable influence, and at the same time in its resemblance to that of the pine-lands of the South, there may be drawn something more than a hint as to the real agency of Southern climate upon diseases of this nature. But broad as the hint is, it is not usually taken: or if so, not in time. For many invalids in the second stage of consumption, improved as they have, do not perceive the wisdom in taking means to continue in this same climate, but delude themselves with the hope that they will be well enough to remain North during winter; or, if they conclude to go South, defer it until they are obliged to, having two or three "colds upon their lungs."

The peculiarities of a southern climate as bearing upon its benefit to consumptive invalids, are far from being referable alone to its ele-

vated temperature. I refer here to the alluvial and pine land portion of Georgia and South Carolina. It has other characteristics, which, though less well understood, are not the less important as to effects. The atmosphere has a decidedly sedative, soothing influence, which, due to whatever causes it may be, has a very desirable effect upon the mucous membrane of the air passages—and this effect, once commenced, is not likely to be disturbed by sudden vicissitudes of temperature. There the general tendencies of disease seem to be changed; and that, too, *from* the thoracic *to* the cutaneous and abdominal organs; it is through these changed relations that the cure is to be effected. But a fact more worthy of notice than all the rest, is the almost complete exemption from phthisis of the native inhabitants of this section of country. It is true that consumption is there found; but a careful inquiry has shown that in almost every instance it had been immigrated either directly or indirectly. Other diseases, such as those of a miasmstic character, those of the intestinal canal and its appendages, seem to exist in the place of those of a tubercular nature; and were we better acquainted with that curious yet important subject—*the antagonism of diseases*—we might, perhaps, better understand how these relations are effected.

That these relations of disease are based upon climactic influences, might be here shown in many ways; but I will mention one fact, observed by myself, which is quite indicative. In northern and upland Georgia, the soil and aspect of the country quite resembles that of New England. There, as in New England, the primitive geologic rocks appear; and it has for a long time been remarked, that no where South is the climate so much like that of New England, as in this section. The diseases follow in the same train, for they are preeminently those of the pulmonary organs. Consumption, lung fever, bronchitis, are common, and this, too, at the apparent exclusion of the diseases of the low and pine land regions.

An additional fact of the same bearing, and which may be here mentioned, is, that, even in the pine land of upper South Carolina, a very severe winter, (as the last, for instance,) is quite productive of pneumonia or lung fever with those inhabitants living on creeks or in damp spots. The construction of their houses is little calculated to shield them from the adversities of cold and damp; and thus situated it is rather a noticeable fact, that the disease assumes an acute form, exactly as is true of the Irish of New England, in whom tubercular tendencies are not common; whereas, among our native in-

habitants, acute pneumonia is rather a rare disease, the pulmonary affections being generally of a more chronic or insidious nature.

If such are the influence of climate upon comparatively healthy constitutions, we should naturally infer that its tendency would be toward arresting the development of tubercular disease, and favoring that condition of the general system leading to a permanent cure.

That this is so, I fully believe, and I think it can be tolerably well shown, imperfect as the state of inquiry has hitherto been.

But if we sought proof in the results of migratory invalids, our case would truly be a poor one. If climate is to work a change, it is foolish to expect that that change will be effected unless the individual gets acclimated. It is, therefore, to the results of those cases of tubercular disease where the residence has been permanent, that we are to look for a correct version of the matter.

In my intercourse with many intelligent physicians at the South, many cases were described to me, in which individuals from the North, having phthisis in its first stage, had taken up their permanent residence there. Their pulmonary symptoms gradually disappeared, and now they are quite free from them, enjoying a very fair share of health. In the same manner, also, several cases were described to me, in which the disease had far advanced in the second stage—a cavity of small cavities having been produced in one of the lungs. These individuals remained there permanently, settling down into quiet life. They recovered so as to enjoy tolerable health—the cure taking place, as indicated by physical signs, much in the way Laennec has described, by the partial cicatrization of the cavities, which yielded a blowing, dry, amphoric sound. In one of these instances, the young man felt so much restored after a few years, that he hazarded a return to New England, for a permanent residence. But in less than a year, he was seized with a violent and unexpected hæmorrhage, and died soon after of ordinary phthisis.*

It is to be regretted that statistics upon this subject have not been made out; but as the matter now stands, the conviction left upon the mind of the medical enquirer and observer is full and clear.

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* In citing these facts, I trust I shall not be misunderstood. I am very far from advocating the doctrine that all who have consumption in the first and second stages, can get well by living permanently at the South; but I do advocate that if benefit in these cases can be reasonably hoped for by this change of climate, this change should be permanent.

There is another fact, vouched for by an intelligent physician of Georgia, and which should be mentioned in this place. He affirmed to me that the negroes of Maryland and Northern Virginia, affected and broken down by pulmonary trouble, and perhaps scrofula, as shown by enlarged glands, &c., if sold to Georgia and other far Southern planters, soon improved, losing their symptoms, quite often recovering, and growing strong and fat.

I was also struck with the fact of the long duration of phthisis with those negroes of the South, who, from quite ill conditions of life, had contracted the disease. It seemed to run a light, lengthy form, although perhaps fatal in the end. I recall to my mind one instance, where I examined the chest of a negro having tuberculosis of the apices of both lungs, and a cavity in the left one. To the physician with me, I declared he would die in three months. But he affirmed that he would live two or three years, and that, as property, this probability of life would be admitted.

But I need discuss this matter no further. It now remains for me, in conclusion, to make a few general remarks.

The view I advocate is, that if a consumptive can reasonably expect benefit from a southern climate, his residence there must be permanent, and not migratory.

Besides the arguments adready adduced in support of this view, it may be worth while to notice the testimony given me by those physicians residing in the winter resorts of northern consumptives. Generally, they say, they (the invalids) do not arrive there until actually driven by the cold weather of the North. As soon as the warm, delightful weather of April has come, and they are, if at all, in a fair way for permanent improvement, they are uneasy about their return North; and the occurrence of two or three quite warm days in succession, soon settles their determination. By early May they have left, looking much better than when they came. The ensuing winter they appear again, but it is evident they have lost ground during their absence; they return home again in early spring as before, and here often is the end of their migrations. Others, having the disease in a more chronic form, appear regularly for many years; but at last are not seen or heard of again.

I am aware that invalids, on going South, expect too much in the way of climate. They picture in their minds cloudless skies over a land of the cypress and myrtle, and which will immediately effect their restoration. I need scarcely say that in this they are doomed

to disappointment; and so it will always be, until the opinion is fully recognized—that it is not sunny skies that will alone benefit them, but rather a continuance under the aggregate of the influences of the climate.

At the present day numerous objections are raised by northern physicians against this southern migration. One class disapprove of it on the ground, both of the incurability of the disease, and a disbelief in warm climate, based upon an ill-digested theory, partly chemical and partly medical. Another class, and much the more numerous, although avowing a belief in southern climate, nevertheless quite object to the migration on the ground of humanity. They cry out against what they call the cruelty of sending people away from the comforts and attentions of home—and that too with a wide possibility to die among strangers. In its place they advise the patient to remain among the comforts of home—occupying a large chamber, which by various arrangements is to have a southern or summer atmosphere.

There is some force in a part of this objection, for sometimes there is great inconsiderateness in urging patients away. But, taken as a whole, it is not valid. Certainly no judicious person would advise the going away of a patient unable to bear the journey, or whose end is not far distant. But the conveniences of modern travel have taken away the former terrors of the transit. The journey now is easy and of short duration, and with mail and telegraph one can feel quite near home. With these conveniences there seems little necessity for the immuration of an invalid in a chamber—obliged all the while to take sedative medicines for cough—and however many and complete the home comforts, yet in a fair way to depress the nervous system, and enervate the whole body.

In no disease is there so much danger of over-medication as in consumption. Experience has shown, that as a disease primitively of nutrition, our object must be to strengthen the nutritive function, and to spare every unnecessary dose of medicine into the stomach, the tone and power of which must be carefully nursed by proper food. I need scarcely say that these relations cannot be carried out by a winter's residence at the North, however favorable the circumstances.

In cases where the symptoms are not immediately threatening, and the patient has remaining considerable physical power, so as to be about in an easy way without fatigue, it will generally, I think,

be judicious to advise, at least a winter's residence at the South, where one can be under the influence of pleasant days, and drink in balmy air instead of cough mixtures.

As to a summer's residence at the South, beside the objection of its being unnecessary, there is another generally urged—the enervating effect of its excessive heat. This objection is not well founded, and rests more upon ideas of a more southern latitude than any thing else. As to degree of heat, the mercury certainly rises higher in the New England than in the Southern States. For in these last it rarely exceeds ninety degrees, even in the hottest season. It is true that the hot season is long, and, in the low sandy regions, its effect is quite depressing. But possessing such a variety of climates as does South Carolina and Georgia, the invalid need not thus be endangered, for there are resorts midway between the low and the mountainous parts of both of these States, where the summer climate is indescribably fine, having, perhaps, no equal in this or any other country.*

But in advocating the necessity of a permanent southern residence for the consumption, I should be willing to do so only with some exceptions. There is a class of patients, generally of the so-called lymphatic and bilious temperaments, who bear heat badly; and what they gain in a decrease of local symptoms, they lose in general strength. I need scarcely say that this class of cases every where is the most intractible, and least amenable to treatment. It belongs to the judicious physician to perceive the relations of such cases, and advise accordingly.†

As to variety of climate and climatic advantages, the United States are certainly more highly favored than any country. If this fact is known generally, it is not appreciated. No invalid need cross the water; for in our own borders, among our own people, who speak the same language as ourselves, we can, by a journey of less than eighty hours, be in a clime certainly not surpassed by any of

* Such is the character of the climate of Greenville and its neighborhood in South Carolina, and of Stone Mountain, in Georgia. In fact there can be little doubt that the climate of both of these States is far better in summer for invalids than in winter.

† In this connection I may make a remark having an unrestricted application. It is in a disease so precarious as consumption, if an individual residing at the South is doing well, the wisdom of letting well alone and remaining there, should be recognized, however late in the spring the time may be. They should not act up to the dictates of a common theory, before they have tested its value in their cases, by individual experience.

the old world. Dissatisfied as the English are fast getting with their "sunny Italy," or their "beloved Madeira," it may not be regarded improbable that, when the communication shall have become easier and more direct, they will exchange these for the sunnier spots of Carolina and Georgia.

Boston, Sept. 13, 1852.—*Boston Med. and Surg. Journal.*

ART. III.—*Adhesive Plaster as a means of making Extension in the Compound and other Fractures of the Lower Extremity.* By S. D. GROSS, M. D., Professor of Surgery in the University of Louisville.

UNIVERSITY OF LOUISVILLE, Sept. 27th, 1852.

To the Editors of the Medical Examiner:

GENTLEMEN:—Will you be so kind as to grant me a little space in your valuable Journal for a few remarks on the subject of Adhesive Plaster, as a means of making extension in compound and other fractures of the inferior extremity? I am induced to ask this favor, because the origin of this mode of treatment, which has lately attracted considerable attention, and which has been adopted with great advantage, in several sections of our country, has been ascribed to a gentleman who is in nowise entitled to the credit of it, if credit it deserves.

In my work on the "Anatomy, Physiology, and Diseases of the Bones and Joints," composed within a few months after I was invested with the honors of the Doctorate, and published in Philadelphia in the summer of 1830, is the following passage:—"In complicated fractures of the leg, it not unfrequently happens that the soft parts about the ankle are so much contused, or otherwise injured, as to render it impossible to employ the usual extending bands. When this is found to be the case, the difficulty may usually be remedied by applying along each side of the leg, as high as the seat of the fracture will admit, a piece of strong muslin, about two feet and a half in length, two inches and a half in width, and spread at one of its extremities with adhesive plaster. The part which is applied upon the limb should be confined by three or four circular strips, so as to keep it firmly in its place, and equalize the extending power. The free extremities of the extending bands should then be tied under the sole of the foot, and be secured to the block or bar which connects the lower ends of the splints. This mode of making

extension, for which we are indebted to the ingenuity of my friend and perceptor, Dr. Swift, of this place, will, I am fully persuaded, be found highly useful in practice, and satisfactorily obviate the inconveniences to which I have alluded."

At the time of writing the work here quoted, I was spending a few months at Easton, Pennsylvania, where I had an opportunity of witnessing the excellent effects of this mode of management. Since that period I have omitted no opportunity of employing it in my own practice; and I have never failed, during the last thirteen years, to speak of it prominently before my classes in the University of Louisville.

Dr. Sargent, in his excellent little work on "Bandaging and other Operations in Minor Surgery," ascribes the credit of this method of extension to Dr. E. Wallace, of Philadelphia; and the same statement is reiterated in that gentleman's edition of Mr. Druitt's Surgery, published in Philadelphia in 1848.

Within the last two years, Dr. Josiah Crosby, of New Hampshire, has published a short account of this mode of treatment, in the New Hampshire Journal of Medicine, illustrated by several cases, in which it appears to have been adopted with the happiest effect. In one of these, a compound fracture of the tibia and fibula, the counter-extending band was applied to the upper part of the leg, and the extending band to the lower part of the leg and foot; the plan answered most admirably, and caused not the slightest inconvenience to the patient. Dr. Crosby states that he has healed two cases of fracture of the clavicle in children two years of age, with nothing but adhesive strips, with as good success as he ever had with the old methods, and with half the trouble. The same mode of treatment has been lately employed with great success in the New York Hospital, in fractures of the inferior extremities.

My conviction is that this plan of making extension deserves to be much more extensively employed than it has hitherto been by my professional brethren. It is particularly applicable to compound and complicated fractures of the leg, but it may also be advantageously resorted to in all cases of the fracture of the leg and thigh, in which, on account of injury, excoriation, disease, or excessive morbid sensibility of the ankle, heel, or instep, it is impossible to use the ordinary extending means.

The limb should always, as a matter of course, be shaved before the bands are applied; and the substance of which these bands are

composed should be of the most pliant and unyielding character. The adhesive plaster should also be of a very superior quality. The circular strips should not completely encircle the limb, lest they impede the return of the venous blood, and the leg should be carefully bandaged from the toes up, as in the ordinary mode of treatment.

I am, gentlemen, very respectfully,
Your friend and obedient servant,
S. D. Gross.

PART THIRD.

FOREIGN INTELLIGENCE.

MIDWIFERY.

Art. I.—*On the Management of Women after the cessation of Menstruation.* By Dr. E. J. Tilt.

[The superabundance of blood and nervous energy after the cessation of the menstrual flow, may be safely and effectually kept down by the habitual use of small doses of purgatives; and as they may have to be continued some length of time, it is best to consult the patient as to what medicine would be best tolerated. The purgative to be used depends upon the constitution of the patient. Perhaps the best is some mild purgative which has been found to agree with the patient. Dr. Tilt continues:]

I frequently prescribe the soap-and-aloes pill of the Edinburgh pharmacopœia, ordering five or ten grains to be taken with the first mouthful of food at dinner. Hemorrhoidal affections I have never seen *caused* by this frequent use of aloes, but I have seen them relieved by it; and as I read in Giacomini's treatise on materia medica, my experience on this point is confirmed by that of Avicenna, Stahl, Cullen, and his own, so I think there must be some exagger-

ation as to the extraordinary property generally ascribed to this valuable drug, which can be associated with hyosciamus, and is thus said to be less liable to induce piles. Kemp and Hufeland recommend the following powder to be given to those who are advanced in years, and who complain of a tendency to vertigo :—Guaiacum resin, cream of tartar, of each half a drachm, to be taken at night. This no doubt, will sometimes be found a useful laxative ; so will the popular remedy called the Chelsea Pensioner, of which Dr. Paris gives the following formula in his excellent pharmacologia :—Of guaiacum resin, one drachm, of powdered rhubarb two drachms, of cream of tartar and of flour of sulphur, an ounce of each ; one nutmeg finely powdered, and the whole made into an electuary with one pound of clarified honey ; a large spoonful to be taken at night. I generally administer the flour of sulphur alone, or else to each ounce of it add a drachm of sesqui-carbonate or of biborate of soda, and sometimes from five to ten grains of ipecacuanha powder. One to two scruples of these powders taken at night in a little milk, is generally sufficient to act mildly upon the bowels, and I consider such combinations as very valuable when a continued action is required.

I feel obliged to class sulphur among the purgative remedies, because such is its visible action, but I believe it owes its chief virtue in diseases of cessation, to another action, much more difficult to understand, and which has long rendered it so valuable both in hemorrhoidal affections, where there is an undue action in the intestinal capillaries, and in skin diseases marked by a morbid activity of the cutaneous capillaries. Whether sulphur cures by acting on the nerves, or on the blood vessels, or by modifying the composition of the blood itself, it is difficult to tell, but it does certainly cure the diseases I have enumerated. It forms part of the many popular remedies for the infirmities of old age, was recommended by Hufeland, and is lauded by Dr. Day in his work on the diseases of old age, but its utility is not known in all derangements of the menstrual function, at whatever period of life they may occur, and particularly at the change of life, where, if required, its action may be continued with impunity for months and years.—*Provincial Med. and Surg. Jour.—St. Louis Medical and Surgical Journal.*

PHYSIOLOGY.

ART. II.— *On the Function of the Spleen and other Lymphatic Glands as Secretors of the Blood.* By Dr. J. H. BENNETT.

Dr. Hughes Bennett here treats of, 1. The relation between the colorless and colored corpuscles of the blood; 2. The origin of the blood corpuscles; 3. Their ultimate destination.

1. *Relations between the Colorless and Colored Corpuscles.*—Dr. Bennett believes, with Mr. Wharton Jones, that the colored corpuscle is merely the liberated nucleus of the colorless cell. The transformation takes place in the following manner: The colorless cell may frequently be seen by the aid of acetic acid, to have a single round nucleus; but more commonly the nucleus is divided, each half having a distinct depression, with a shadowed spot on the centre. Occasionally, before division takes place, the nucleus becomes oval, elongated, and sometimes bent, or of a horse-shoe form. It may be divided into three or four granules. These stages are figured by Dr. Bennett; they were discovered by him in his interesting observations on leucocythemia, and in experiments on mammals, birds, reptiles and fishes.

He does not believe with Mr. Wharton Jones, that all the nuclei forming the colored corpuscles, in mammals, should necessarily be provided with a cell wall. Many, however, do proceed beyond this point, and may be seen to have cell walls; the nuclei, in such cases, increase endogenously, by fissiparous division, and, on the solution of the cell wall, become colored blood-discs. In fishes, reptiles and birds, the colored blood-corpuscles are nucleated cells, originating in the blood glands.

2. *Origin of the Blood-Corpuscles.* This, (as was enunciated many years ago by Hewson,) is to be looked for in the lymphatic glandular system, under which head are included the spleen, thymus, thyroid, supra-renal, pituitary, pineal, and lymphatic glands. Nuclei and nucleated cells are found in these bodies, and Dr. Bennett's observations on leucocythemia have shown that an increase of colorless cells in the blood is connected with enlargement of the spleen and other glandular organs. The blood of the splenic and

portal veins is always richer in colorless corpuscles, than that of the systemic circulation; and in young animals, in which the thyroid thymus, and supra-renal glands are most fully developed, the blood contains most colorless corpuscles. Moreover, in a case of enlargement of the thyroid body, this organ contained cells and nuclei of much smaller size than usual, and corresponding cells and nuclei were found in the blood. In another case, the colorless corpuscles in the blood were of two distinct sizes, corresponding with a similar appearance in the corpuscles of the lymphatic glands. It is difficult to determine how the corpuscles find their way from the lymphatic glands into the blood; but Dr. Bennett suspects that there must be a direct venous communication. He believes that if he has established that, the corpuscular elements in the so-called blood-glands, are transformed into those of the blood, it will follow that the lymphatic glands secrete the blood-corpuscles in the same as the testes secrete the spermatozoa, the mammæ the globules of the milk, or the salivary and gastric glands, the cells of the saliva and the gastric juice.

The most probable and consistent mode of origin of the corpuscles is in an organic fluid, by the production of molecules, the successive development and aggregation of which constitute the higher formations. Multitudes of free nuclei join the blood, and are at once converted into colored blood-discs; and their cells circulate for a time, when their walls are dissolved and their nuclei become colored. The number of colored corpuscles in the blood increases in proportion to the development of the lymphatic glandular system in the animal kingdom, and Mr. Drummond and Dr. Bennett have observed that the nuclei in the spleen, varying in size in different animals, correspond with the nuclei of the blood-corpuscles.

Ultimate Destination of the Blood-Corpuscles. Dr. Bennett believes that the blood-corpuscles are dissolved, and, with the effete matter absorbed from the tissues around the lymphatics, constitute blood-fibrin. Zimmerman believed that fibrin resulted from the metamorphosis of the textures. The arguments which support this view, appear to Dr. Bennett to be unanswerable. There is no fibrin in the chyme, very little in the chyle, less in carnivora than in herbivora. There is no fibrin in the egg, nor in the blood of the fœtus, and very little in the new-born infant. On the other hand,

all those circumstances which cause exhaustion of the textures, or increase the amount of absorption, augment the quality of the fibrin; as after inflammatory or other exudations, starvation, violent fatigue, pregnancy, and frequent bleeding and hemorrhage. The amount of fibrin in the blood seems out of proportion to what would be required for textural nutrition. Increase of fibrin is also accompanied with diminution of the red corpuscles: hence it appears probable that fibrin results from a solution of the blood-corpuscles, conjoined with the effete matter derived from the secondary digestion of the tissues, which is not converted into albumen.—*London Journal of Med., from Month. Jour. Med. Science.—Charleston Med. Journal.*

PRACTICAL MEDICINE.

ART. V.—*Colloquia de Omnibus Rebus.—Coll. V.—De remediis Novis, specifiis, diabeticis, etc.*

The introduction of dramatic composition into medical literature, is somewhat of a novelty—an *innovation*—but it has, at least, the advantage of serving to relieve the dull uniformity of a style which generally characterizes the contributions to a medical Journal. The reader, at all events, will not be likely to take exceptions to the following colloquy, nor to others of the same sort, when he learns that it is taken from the Edinburgh Monthly Journal of Medical Sciences, and that the *Dramatis Personæ* are as follows:

Obstetricus..... PROF. SIMPSON.
Chirurgus..... PROF. SYME.
Medicus..... PROF. CHRISTISON.
Physiologus..... PROF. BENNETT.
Chemicus..... PROF. MACLAGAN.
Editor..... DR. WM. ROBERTSON.

ED. BUFFALO MED. JOURNAL.

Obstetricus (to *Chirurgus.*) Might a friend venture to inquire what has disturbed your equanimity this evening?

Chirurgus. Even yours would have been unsettled by the gentleman's story, who drove from my door as you arrived.

Chemicus. A tall, handsome young fellow. I wondered to see him leave your hospitable gate at such an hour.

Chirurgus. He is not in a condition to enjoy hospitality, and came here for a very different purpose. He is one of the

Victims of Mercury. Passing through Edinburgh with a mercurial sore throat, a pocketful of mercurial prescriptions, and a mercurial belt, he felt uneasy travelling with three such unsafe companions, and came to see what I thought of him and them.

Chemicus. He would be surprised to learn that the root of his misfortune lay in his belt and recipes, and not in his throat.

Chirurgus. Very possibly. But I have not yet told you all. Led by incidental circumstances, he had been some time indulging freely in wine and wassail, and living a life of hard exercise and constant exposure. On expressing my wonder at this, he told me, to my consternation, that the London surgeon, who advised him to poison himself with mercury, had not put him on his guard, or under any rule or restriction, as to diet or regimen. You may judge what reason I had for appearing discomposed.

Chemicus. The traveller has cause to thank his stars and his constitution of "oak and triple brass," that he had not bid adieu to his nose and palate, at least. What a fearful amount of misery must arise from the wagon-loads of mercurial pills and potions which are administered in London to all sorts of weak and scrofulous victims of venereal disease! It is a subject of painful reflection to every mind not proof against every humane consideration.

Chirurgus. The *Athenæum* tells us the other day, that medical men "have a vested interest in fever and cholera; their estate consists in the foul places, the bad drains, the putrid heaps of the city grave yards" If this opinion, which is doubtless founded on acquaintance with the sentiments of the author's medical friends—should fairly represent the tone of metropolitan ethics, it would be unreasonable to expect the abandonment of the mercurial treatment of syphilis. But we must hope things are not quite so bad as they appear from the *Athenæum.* In every medical community there must be numbers of professional men who are not so blinded by the pursuit of gain, as to have their eyes shut to the truth, because it may affect their pockets. There are even some bright exceptions to the dogmatic mercurialism of London surgery.

Medicus. Do you mean to tell us, that, after what has been done

and written about syphilis and mercury during the last forty years, a London mercurialist is still the exception in London practice?

Chirurgus. Certainly. Have we not perpetual proof of this in the contents of the London Medical Journals, and in such living illustrations as my belted traveler—whose case, I can assure you, is by no means a solitary one in my observation.

Medicus. This is deplorable. When I first went to London, in 1820, satisfied by frequent experience in our Infirmary here, of the soundness of the non-mercurial doctrine, first propounded by the medical officers of the army, and then systematized and powerfully advocated by Dr. John Thompson, I was shocked to find as pupil of one of the great metropolitan hospitals, its "foul-ward" patients salivating, many of them for the second, third and fourth time, and its surgeons ignorant or regardless of the glorious victory over mercury gained by our army surgeons, and conclusively followed up in the North. Returning thither in 1838, I expected to encounter truth at last in the ascendant; but in vain. After the lapse of some eighteen years there were the same wards, the same fœtid atmosphere, the same mercurial victims—other surgeons but the same ideas. It is possible that fourteen years more have wrought no decay in that old donjon keep of prejudice?

Physiologus. I can add my testimony that matters were in the same state in 1833, having found in its attics the same sort of patients, and spit-boxes, and atmosphere, and notions, that year, while a pupil, as you did in 1820.

Obstetricus. When *Chemicus* and I accompanied the late Mr. Bransby Cooper at his visit in Guy's Hospital, we ascertained that every surgical patient in the hospital was taking mercury in one shape or another; and there is no reason to suppose that matters are any better yet, so far as syphilis is concerned.

Chirurgus. The more need, then, for us to show the contrast; which the managers of the Infirmary have just put it in our power to do. The great additions now made in the new buildings, will afford ample accommodation for venereal patients, who for many years have been excluded from the hospital. We shall thus enable the student, as well as others, to learn from personal observation the truth of the principles, which have been so long taught and practiced in Edinburgh:—that "Hunterian chancres" and other primary affections may be cured by simple local treatment, without any mercury; and that in most secondary cases, mercury, instead of

being an antidote for venereal affection, is another poison, and nothing else.

Editor. But would you consider so slight a matter as a Hunterian chancre a fit subject for hospital treatment? it is such a trifle now under the non-mercurial method.

Chirurgus. The more occasion to prove to our unbelieving neighbors that it is so.

Editor. And where will you obtain in Edinburgh secondary cases of such severity as to instruct pupils or convince skeptical Southrons?

Chirurgus. Edinburgh can still supply a few of indigenous growth, thanks to one or two surviving home believers in the specific virtues of mercury against syphilis; and any want of native produce will be amply made up by arrivals from other parts still groaning under the mercurial curse.

Editor. To what do you ascribe so great a disregard of advancement in therapeutics, as this dogged perseverence of our London brethren in the mercurial delusion?

Chemicus. To metropolitan indifference for improvement originating from without; Roman contempt for every thing barbarian.

Physiologus. Don't you think it may be rather referred to the prevalence there of a blind, degrading faith in Specifics, of which this mercury in the cure of syphilis, has long been the chief?

Medicus. To both the one and the other concurrently, but at the bottom to an imperfect, unsound therapeutical education.

Chemicus. Why look farther than to metropolitan apathy toward "outside" improvement. For example, there has not been a single improvement of any importance made here in the treatment of diseases during the last five and twenty years that has been admitted into London practice, except tardily and imperfectly, if admitted at all.

Medicus. That is a bold proposition, yet true, and which, I doubt not, you can substantiate, if it be called in question. It may well rouse our metropolitan friends to serious reflection. But meanwhile, look a little beyond this state of things, and I think you will find its origin to be mainly a radical defect of tuition in therapeutics.

Chemicus. It was a marvelous step backward, when in 1850 the whole Boards of medical education in London, by incomprehensible common consent, reduced their requirements in materia medica to a course of lectures of three months.

Medicus. A heavy blow, and discouragement truly to therapeutics. And more than this: It is a proof to me that the nature and scope of therapeutics have not yet been duly appreciated in the London schools, or by the board of education there.

Is it possible to estimate too highly the importance of this branch of medical science? What is the ultimate object of medicine but the cure of diseases? What then ought to be the ultimate object of all medical education, if it be not the knowledge of the means of cure? To what purpose should we teach anatomy, physiology, chemistry — why pathology and diagnosis — if we did not possess remedies, medical and surgical, which we could put into the hands of students when so instructed? But fortunately we do possess them — indeed in too lavish profusion. And the best of them are hard to obtain, difficult to know, variable in quality, puzzling to select, nice to prepare, but above all most wonderful in action; energetic, multifarious, complex, versatile, and singularly influenced by co-operating circumstances.

The ancients knew all this: Therapeutics, indeed, with semiology constituted almost their whole circle of medical science. The early modern physicians knew it also: Witness Matthioli's great folio *Commentationes*, which went through eleven editions during half the sixteenth century. Alston, the first British professor of materia medica knew it. He stated it in this University in 1738, with a course of lectures of six months in duration, and I have never heard that either professor or student has since found the period too long. In all great medical schools of the present day, except one, the same opinion has prevailed. In Britain, under the united name of Materia Medica, on the Continent under the separate heads of Pharmacy and therapeutics, the means of curing diseases are taught in just equilibrium with the other branches of medicine. In London alone has it entered into the understanding of man to conceive that pharmacy, therapeutics, diet and regimen may be mastered by a student in sixty lectures. When, indeed, University College, and afterward King's College, were founded on the model of that of Edinburgh, an attempt was made to place the materia medica on a satisfactory footing, and other London schools followed the example. But after a twenty year's trial the attempt, it seems, has signally failed; and in 1850 both the London College of Surgeons and the Apothecaries' Company, reduced their requirements in materia medica to the old miserable standard.

Chirurgus. Possibly they thought that all which is at present positively ascertained on the subject, may be taught in three months.

Chemicus. If professors of medicine and surgery were to teach only what is positively known in their several departments, few of them would require more time. It is the very uncertainty of materia medica, and especially of therapeutics — the number of doubtful points to be discussed, the quantity of falsehood to be cleared up, the amount of fashionable humbug to be exposed, that entail the necessity of deliberate tuition.

Medicus. Exactly so. But unfortunately, in the London system there has long been no time left for any thing but hasty tuition in this and some other equally important branches. The dominant influence of the College of Surgeons as an educational body; the partial, narrow views of their Council, who now, as in time past, will look to nothing but anatomy and surgery, as deserving of earnest attention have been the main cause of this. With the Council of the College, anatomy and surgery have been every thing; at least every thing else is little more than nothing. Even physiology and pathology by their regulations mere offsets or appendages to anatomy, and to be taught as branches of it; a very natural error for a body composed entirely of hospital surgeons and lecturers on anatomy and surgery, and in which no other branch of medical science or art is represented. And as for the Apothecaries' Company, it is easy to see why they do not encourage the science which they ought peculiarly to foster; they cannot even yet overcome the old hallucination that apprenticeship is education, and that a student, who is constantly handling drugs, must necessarily come to know all about them.

The consequences of all this might have been foreseen. What their directors undervalue, students do not prize. What the magnates of the profession do not cherish, the masses neglect. Therapeutics has ceased to be an object of inquiry, or is cultivated without method or principles. No one seems to care to improve our knowledge of old remedies. There is an incessant thirst for new ones. But these are sought for by the rule of chance; and not so much because they are needed for the purpose to which they are applied, and for which there is no want of acknowledged means; but apparently to satiate a morbid public craving for novelty, or to serve as a periodical invitation and advertisement. A wide-spread empiricism

broods over medicine, penetrating even into high places; and quackery of all kinds grows rank under its shade, pervading even the regular profession.

Obstetricus. You take a gloomy view of things. But the very magnitude of the evil will by and by work out its own reformation.

Medicus. It is not easy to avoid despondency, when one beholds, in relation to so essential a branch of medical science and practice, the ignorance of the profession, the advance of quackery, the sneers of the public; and the apathy of our medical rulers.

Chemicus. "Apropos des Charlatans," I see.

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Treatment of Diabetes.—Having attained something like a true pathology of the disease; having discovered that it is not a disorder of the kidneys, but a depraved digestion; and having ascertained the chemical composition of all the principal articles of man's food; by theory it was at once inferred, that a number of old remedies in the shape of physic, and many new ones still proposed from time to time may be allowed to sink into oblivion. By theory, too, we know that a peculiar regulation of the diet constitutes the only sound treatment; and we know also what articles compose that diet, thus already making a great stride towards the cure. For, by the substition of gluten-bread and cakes made of bran, butter, and eggs, for ordinary bread and other farinaceous food, and by allowing such vegetables as spinage, cauliflower, brocoli, and cabbage, which contain little or nothing capable of conversion into sugar, we have rendered a permanent nitrogenous diet practicable, which it was not before, and so we effect sometimes a cure, and often a most material amendment, which may be maintained indefinitely by due dietetic observance.

Obstetricus. Have you seen any one recover entirely in that way?

Medicus. A gentleman of sixty-five recovered entirely three years ago, and continues well, unless he exceeds at table; and another of twenty-five, and a third, a boy of thirteen, are greatly improved; the latter, indeed, might be thought in all respects well, except that the urine continues saccharine.

Obstetricus. Although we do not now know any medicine to improve this state of things by directly controlling the morbid peculiarity of digestion which constitutes the disease, who knows that theory may not soon direct us to one?

Medicus. It is much more likely to do so than empirical trial, that is, accident, which has been hitherto followed as the main guide. Indeed, I know not but it may have pointed out a remedy already. At least I have just received some very apposite information, which may interest you, relative to an entirely new remedy, derived strictly from theoretical considerations—viz :

The Treatment of Diabetes by Rennet, which seems to promise well. Dr. Gray, of Glasgow, was lately induced to make trial of this substance by the following theoretical views. Diabetes consists in the process of digestion stopping at the conversion of other organic principles into sugar, which cannot be oxidated in the lungs, and is therefore thrown off as excrementitial by the kidneys. But rennet out of the body converts sugar into lactic acid, and it may do so within the body likewise. Should such conversion take place, however, the disease will be brought to an end, if Leibig be right in his opinion, that lactic acid is one of the principles of the organic world which can support respiration, by becoming oxidated in the lungs. Resting on these views, Dr. Gray tried rennet in the case of a patient so much reduced by diabetes, of at least twelve months standing, as to be unable to work. Dietetic treatment had been only of partial benefit. Medicines of various kinds had been of little use. The urine was copious, 1045 in density, and strongly saccharine. On the 30th of last July, a teaspoonful of rennet, prepared as for the dairy, was given thrice a day. In eight days the density of the urine was reduced to 1025, and it contained lactic acid, but only a trace of sugar. In twenty-five days the quantity was sixty-four ounces, the density 1022.5, and the sugar gone entirely. In six weeks the urine continued free of sugar; the man had gained weight considerably; his strength was such as to enable him to return to his employment; he thought himself in as good health as before his illness ; and nevertheless he had been ten days on nearly his usual allowance of wheaten bread.

Now, I am far from meaning to say, nor does Dr. Gray say, that rennet is thus proved to be a remedy for diabetes by its apparent success in a single case. But it is surely the most feasible remedy that has been proposed for many a day ; so feasible, that I hope many will give it at once a fair trial, which is his object in allowing

broods over medicine, penetrating even into high places; and quackery of all kinds grows rank under its shade, pervading even the regular profession.

Obstetricus. You take a gloomy view of things. But the very magnitude of the evil will by and by work out its own reformation.

Medicus. It is not easy to avoid despondency, when one beholds, in relation to so essential a branch of medical science and practice, the ignorance of the profession, the advance of quackery, the sneers of the public; and the apathy of our medical rulers.

Chemicus. "Apropos des Charlatans," I see.

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Treatment of Diabetes.—Having attained something like a true pathology of the disease; having discovered that it is not a disorder of the kidneys, but a depraved digestion; and having ascertained the chemical composition of all the principal articles of man's food; by theory it was at once inferred, that a number of old remedies in the shape of physic, and many new ones still proposed from time to time may be allowed to sink into oblivion. By theory, too, we know that a peculiar regulation of the diet constitutes the only sound treatment; and we know also what articles compose that diet, thus already making a great stride towards the cure. For, by the substition of gluten-bread and cakes made of bran, butter, and eggs, for ordinary bread and other farinaceous food, and by allowing such vegetables as spinage, cauliflower, brocoli, and cabbage, which contain little or nothing capable of conversion into sugar, we have rendered a permanent nitrogenous diet practicable, which it was not before, and so we effect sometimes a cure, and often a most material amendment, which may be maintained indefinitely by due dietetic observance.

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me to give this brief notice of it to you all. Should it prove as successful in other hands as in his, we shall owe another therapeutic discovery to therapeutic theory.

Obstetricus. Were all inventors in materia medica as well trained in therapeutics as Dr. Gray appears to have been, we should have fewer new remedies to deal with, and probably more good ones. It is certainly a striking confirmation of your criticism on London therapeutics, that among the many new London remedies, not one has been announced for some years, which has stood the test of experiment elsewhere.

Medicus. A very natural consequence of the contempt manifested every where in London for therapeutic instruction. By the way I forgot to advert to a most extraordinary circumstance connected with the discountenancing of this branch of medical knowledge by the London boards of education, viz: the complete and universal silence and submission with which their degrading regulations have been received. Not a single teacher has publicly uttered a single remonstrance. Not a journal has issued one word of criticism. Therapeutics, it seems, has not a patron in the whole metropolis. But enough of this for the present.

Physiologus. You mentioned a little while ago that we had arrived at something like a sound pathology of diabetes, and that it seems to be a disease of digestion. But you are aware that this view may require revision, since the recent discoveries of M. Bernard, relative to the functions of the liver, by which he has proved that

Sugar is a Natural Product of the Liver.

Medicus. That is possible. We do not yet see how the singular observations of Bernard are to affect the pathology of diabetes; but that they must have important bearings on it we can scarcely doubt. His inquiries have received too little attention in this country as yet. You have studied them carefully, and indeed have witnessed its leading experiments. Will you give us some account of them?

Physiologus. Within the last two years M. Bernard has brought forward a theory as to the production of sugar in the blood, which is supported by an amount of experimental proof that cannot be easily set aside. He admits that sugar may be formed in the process of digestion, and that a certain amount of it may, as the result

of absorption from the alimentary canal, find its way into the blood. But he has shown that in man, and animals of various orders, even so low down in the scale of creation as acephalous mollusca—if they are even fed entirely upon flesh—the blood from the hepatic vein invariably contains sugar. It is the result, however, of digestion of the food: for it disappears when an animal is starved, and it re-appears when the food is again given. He further observes, that sugar is found in the liver independently of the nature of the aliment. In dogs fed exclusively on animal food for several months, though he could find no sugar in the intestines or portal blood at its entrance into the liver, he always found it in the liver itself, and in the hepatic vein. In the spring of 1851 M. Bernard was good enough to perform the following experiment in my presence, during a visit I paid to Paris: A ligature was tied round the vena portæ where it enters the liver, and the dog was immediately killed by dividing the medulla oblongata. On opening the abdomen, the portal blood below the ligature, and blood from the hepatic vein, were immediately collected in separate glass vessels; and it was at once demonstrated, by applying the same test to both, that the latter contained sugar in abundance, but the former none. Sugar was also found in water in which a piece of the liver had been boiled in chips. Such an experiment seems decisive of the fact, that sugar is formed in the liver, and not conveyed to it with the blood through the vena portæ. Subsequently M. Bernard found that sugar is formed even by the fœtal liver; for he detected it in that organ both in mammals at different stages of intrauterine life, and in birds before being hatched.

In all cases the sugar so formed presents the characters of grape-sugar. In all cases it is quickly decomposed on coming in contact with the blood and animal tissues. Hence, even in the livers of animals, it can be discovered only for a short time after death.

Mr. Bernard next discovered, that section of both pneumo-gastric nerves, as well as any violent shock to the nervous system, destroys the power of the liver to form sugar. The most interesting, however, of his observations, and that which bears most pointedly on the pathology of diabetes, is, that irritation of the root of the pneumo-gastric nerves in the fourth ventricle of the brain increases the formation of sugar in the liver, and causes it so to abound in the blood that is secreted with the urine; in short, this operation produces artificial diabetes. M. Bernard showed me this remarkable experi-

ment. Having squeezed some urine from the bladder of a healthy rabbit, he proved that it did not contain sugar. He then passed a needle through the skull in such a way as to irritate the pneumo-gastric roots, and let the animal rest for an hour after the slight convulsions excited by the injury. Sugar was then found largely in its urine. On then killing the rabbit, it was found that the needle had wounded the intended part. I have since repeated this interesting experiment, with the same result; and so has my former assistant, Dr. Drummond: so there can be no doubt of it.

Medicus. It has also been lately repeated with success in many trials by Dr. Schrader, as announced to the Royal Society of Sciences at Gottingen, in the beginning of the present year.

Physiologus. M. Bernard has since informed me of the results of his farther researches on this subject. He has now discovered, that, although section of the pneumo-gastric nerves destroys the formation of sugar in the liver, it is restored by artifically irritating their cut extremities; and that diabetes is produced exactly in the same manner as by irritating their origins in the brain. He was therefore led to conclude that the nervous action on the liver, necessary for the secretion of sugar, is not direct along the pneumo-gastrics, as he formerly supposed, but indirect, or reflex, through these nerves as incidents, the medulla oblongata as the center, and the spinal cord communicating with the solar ganglion as the excident channels of communication. And following out this theory, he likewise found that whenever the respiratory function is violently stimulated, sugar appears in the urine, and that whenever ether or chloroform is given, a temporary diabetes is occasioned. It follows that the formation of sugar by the liver is analogous to those kinds of secretion which are produced by reflex action through the agency of a sympathetic ganglion, and the influence of certain stimuli—such, for instance, as the secretion of saliva caused by the presence of sapid bodies in the mouth, where the sensitive and moter branches of the fifth pair operate in a reflex way through the agency of the submaxillary ganglion. In this case, stimulating the tongue is necessary to cause a flow of saliva; and in like manner, a certain stimulus of the lungs (normally by the air) is necessary to cause the formation of sugar by the liver. M. Bernard farther supposes, that in the same way that the lungs thus act by reflex nervous influence on the liver, so does increased action of the liver act upon the kidney; consequently, that the sugar, produced in excess by one organ, is excreted by the other.

Such is the present state of the question. Various pathological considerations might be stated which seem to show that Bernard's liver theory of the origin of diabetes is as consistent with facts as the theory which ascribes it to disorder in the stomach. But further inquiry is necessary before we can positively settle the real cause of that very mysterious disease. Meanwhile, it is not easy as yet to see how the discoveries of Bernard will enable us to improve the treatment of diabetes, unless the well-known symptom of dryness of the skin, by exciting the lung to increased transpiration, be connected with the cause of the disorder, in which case diaphoretics, though they have been often used with some benefit, would be more strongly indicated. But I think something will be learnt on this head ere long.

Editor. Gentlemen, I must beg you to excuse me for breaking up this colloquy so soon. I must prepare for an early start to Rotterdam.

Physiologus. And I to Paris.

Chemicus. And I to the Doune of Rothiemurchus.

Chirurgus (*aside.*) And *Medicus, Obstericus,* and I, to the top of The Cobbler.—*Edinburgh Monthly Review.*

Art. VI.—*On the Treatment of Typhus and Typhoid Fevers.* By Dr. Todd.

The general principles contained in this brief article, will be found to accord in a striking manner with the views relating to the same subject submitted by us in former numbers of this Journal.—*Editor Buffalo Med. Journal.*

One important feature of fever, whether it be Typhus or Typhoid, whether diarrhœa be present or not, is *depression.* The disease is adynamic, and great attention must therefore be paid to supplying the patient with a proper nutriment. The basis of his diet should be proteinaceous matters, in such a state that the stomach shall have little or nothing to do to bring them to a condition fit for absorption. In the animal broths, well made, and in milk, you have food which answers to this description. The former, on the whole, are probably the best. Milk is less easily digested, and does not always harmo-

nize with other matters necessary to be given. Farinaceous matters may also be introduced in small quantities. A great secret of success in administering support to patients under these circumstances is this—to give it very frequently in small quantities—quantities so small, that the whole or a greater part of one supply may be absorbed before the next supply is brought; and also not to give a variety of food. Keep to milk and beef tea, or other broth, or to broth and farinaceous matter.

In the great majority of cases you must, I think, give stimulants, and give them early. They will often fail because begun too late. The best stimulants are brandy and port wine, with either of which chloric ether will go as a medical stimulant; any one of the three will often suffice alone. Port wine and brandy ought not to be given together, simply because in general the stomach does not digest well too kinds of stimulants. The same rule as to frequent administrations, and in small quantities, which I have already laid down for food, holds with equal if not greater force in giving stimulants.

In my opinion, the question in the treatment of fever is, not whether you shall give stimulants, but how much you shall give. In many you may give as much as half an ounce every half hour, or even an ounce of brandy, with advantage; but this is in bad cases. On this point you must be guided by the rapidity and compressibility of the pulse, and by the intensity of the heart's action. An important character of the pulse is found in the manner in which it strikes the finger: if vascillating, it is a decided indication for the use of stimulants. The strength of the heart's action, especially of the second sound, is also a good indication. If either sound be weak, but especially the second, you need not fear to give stimulants freely. An impulsive character of the heart's action with a feeble sound, also denotes the use of stimulants. Under such a plan of treatment, in which nutritious foods and stimulants are given freely and from an early period, we find our mortality in fever to be small; we very seldom lose a case of fever. I do not allow myself to be deterred from giving stimulants by the state of the bowels; I know that many have a fear that much alcoholic stimulants irritates the bowels. If the alcohol be given in small quantities each time, it cannot irritate it by direct contact, because it is absorbed before it reaches the intestines. Alcoholic stimulants, if not given too much at a time, are digested in the stomach, and the alcohol gets immediately ab-

sorbed and carried into the circulation. If it does harm, it does so from being in the blood; yet I must confess I have never seen satisfactory evidence of this.

We must also pay close attention to the bowels. If diarrhœa be present, it must be checked by those astringents which contain tannin; as the infusion or tincture of rhatanny, catechu, matico, of logwood, or you may give enemata with small quantities of laudanum. I find chalk often fails, and moreover it is liable to this objection, that as it does not dissolve, its particles may add to the irritation of the blood, by sticking in the ulcerated or inflamed patches. Counter-irritation over the abdomen by mustard, turpentine or blister, is also frequently of use. If there is hemorrhage, you may give small doses of turpentine, five minims repeated every three or four hours, and in such cases, turpentine must be used as an external counter-irritant to the belly.

Another feature in these cases is, the frequent occurrence of bronchitis or bronchial congestion, indicated by rhonchus and crepitation. The bronchial congestion and diarrhœa are frequently the most difficult symptoms we have to deal with in those cases in which we find maculæ. The bronchitis may be relieved by the free application of turpentine stupes or blisters to different parts of the chest, at the same time or in succession; and though in such cases we must carefully watch the effects of our stimulants, we must not think of lowering our patient by bleeding, or by the application of any antiphlogistic remedies.—*Medical Gazette.*

PART FOURTH.

BIBLIOGRAPHICAL NOTICES AND REVIEWS.

1.—*Principles of Human Physiology, with their chief applications to Psychology, Pathology, Therapeutics, Hygiene, and Forensic Medicine.* By Wm. B. Carpenter, M. D., F. R. S. F. G. S., &c.—Fifth American, from the Fourth Enlarged London Edition, with three hundred and fourteen Illustrations.—Edited with additions by

FRANCIS GURNEY SMITH, M. D., Prof., &c. in the Penn. Medical College.—8 vo., pp. 1091. Philadelphia, Blanchard & Lea, 1853.

The profession of this country, and perhaps also of Europe, have anxiously and for some time awaited the announcement of this new Edition of Carpenter's Human Physiology. His former editions have for many years been almost the only text book on Physiology in all our Medical Schools, and its circulation among the profession has been unsurpassed by any work in any department of Medical Science. In consequence of the rapid strides made of late in Physiological researches, and the vast number of facts and theories having accumulated and not hitherto incorporated in his work, the author, to quote his own language, "was led to the determination of, in reality, producing *a new treatise,* in which only those parts of the old should be retained which might express the existing state of knowledge, and of his own opinions on the points to which they relate."

After giving an outline of the changes, additions, and corrections which he has seen fit to make, the author says finally, "It is in this chapter (XIV.) devoted to the functions of the Nervous System, which constitutes one-fifth of the entire volume, that the greatest additions and alterations will be found. This subject, in its Psychological, as well as Physiological relations, has occupied more of the authors attention than any other department of Physiology, and he now offers the more mature fruits of his inquiries and reflections with some confidence that, even if his views should hereafter require modification as to details, they will be found to be fundamentally correct, and to furnish materials of some value in Psychological inquiry as well as in the study of Mental Pathology,—a subject which is now receiving for the first time (in this country, at least,) the attention which its vast importance demands. The peculiar states which are known under the designations of Somnambulism, Hypnotism, Mesmerism, Electro-Biology, &c., are all considered in their relations to Sleep on the one hand, and to the ordinary condition of Mental Activity on the other. And the author ventures to claim that he has not only succeeded in throwing considerable light upon the aberant forms of psychical action, but that he has been enabled to deduce from their phenomena some inferences of great importance in Psychological Science. He would particularly refer to all that of

Section 5 ("On the Cerebrum and its Functions") which relates to *Automatic* operations of the Mind, and to the relation of the *Will* to these, as the opening up of what he believes to be an entirely new line of enquiry."

It is quite unnecessary for us to speak of this work as its merits would justify. The mere announcement of its appearance will afford the highest pleasure to every student of Physiology, while its perusal will be of infinite service in advancing Physiological science.

The well known publishers have manifested their usual liberality in its mechanical execution and in its distribution among the editorial fraternity. May they reap a rich and deserved reward.

Sold by Burr & Randall, Columbus, O.

2.—*A Practical Treatise on Diseases of the Skin.* By J. Moore Neligan, M. D., M. R. I. A., Lecturer on Practice of Medicine in the Dublin School of Medicine. 12 mo., pp. 333. Philadelphia, Blanchard & Lea, 1852.

This is a very companionable little hand book on diseases of the skin. The work is divided into fourteen chapters, each embracing a class of cutaneous diseases. From the examination we have been able to give it, we are favorably impressed with its merits. The style is simple and concise—every disease being lucidly described and systematically arranged. We observe one trait in the book which we like very much. A great many species of cutaneous diseases, very learnedly described by Willan, Bateman, and others, whose display is sufficient to cool the ardor of any young dermetologist, are consolidated into a smaller number. This simplification renders their study and diagnosis much less ardous and difficult. The author, whose acquaintance we had the pleasure of making while in Europe, is the able editor of the Dublin Quarterly Review, and stands high among his professional brethren at home. Though but a young man, his opportunities have been ample, and we deem him good authority on any Medical subject on which he may choose to write.

Inasmuch as diseases of the skin are very imperfectly understood by physicians generally, and for other obvious reasons, we advise all to purchase a copy and give it a thorough perusal.

3.—*A System of Operative Surgery, based upon the Practice of Surgeons in the United States, and comprising a Bibliographical Index and Historical Record of many of their operations during a period of two hundred years.* By HENRY H. SMITH, M. D., Surgeon to St. Joseph's Hospital, Assistant Lecturer on Demonstrative Surgery in the University of Pennsylvania, &c., &c. Illustrated by numerous Steel Plates—8 vo., pp. 807. Philadelphia; Lippincott, Grambo & Co., 1852.

This is truly an age of improvement. Our profession is not behind in the march. One discovery after another, and volume upon volume richly stored with new ideas that sparkle like gems, come in upon us in such rapid succession that we find ourselves unable to comprehend them all, or to do them justice before the public. Smith's work, the most *splendid* now extant on Operative Surgery, is out, and the first complete copy which made its appearance in our city is in our possession, and now before us.

The work is divided into Five Parts. Part I. describes "General Duties and Elementary Operations." This part embraces four chapters: I. General duties of an Operator. II. Elementary operations. III. Means of arresting Hemorrhage. IV. Duties of the Surgeon immediately after an operation. Part II. is divided into thirteen chapters: I. Surgical Anatomy of the Head. II. Operations on the Head. III. Operations on the Face. IV. Operations on the appendages of the Eye. V. Operations on the Eye Ball. VI. Operations on the Humors of the Eye. VII. Plastic Operations on the Face. VIII. Of the External Nose. IX. Of the Internal Nose. X. Of the Mouth. XI. Operations performed within the Mouth. XII. Resection of Bones of the Face. XII. Operations of the Ear.

Part III. embraces operations on the Neck and Trunk, and is divided into XVI. chapters. In the first we have described the Surgical Anatomy, and then follow complete descriptions of every Surgical operation, under all possible circumstances on that part of the body.

Part IV. illustrates the Surgery of the Genito-urinary Organs and Rectum, and is divided into VII. chapters.

Part V. displays the operations on the Extremities, and is divided into eight chapters.

We cannot give a full outline of this very elaborate and complete work—but we take pleasure in saying that it is better adapted to the

wants of the American practitioner than any which has preceded it in this or any other country. The author has adopted the French plan, wherein the method of all the principal Surgeons of the world are distinctly, accurately, and concisely described, so that the student can know all that is worth knowing in the history of operative surgery at a glance, and is enabled to decide for himself which is the most feasible in the case under consideration. All the plates seem to have been engraved upon steel. This must have been attended by a vast expense—but to the young surgeon it is a good investment, as the minutia of every part is most faithfully and beautifully described.

We have no hesitation in recommending this work in the very highest terms to those who desire to perfect themselves in this department of our profession.

For sale by J. H. Riley & Co.

PART FIFTH.

EDITORIAL AND MISCELLANY.

[The following ingenious and singular effusion has been placed in our hands by a chemical friend. We do not vouch that it has never been published before, but it will repay perusal during an idle moment. We are informed that it was actually written by a medical student some years ago in Philadelphia, but of the exact time of writing, or the name of the author, the deponent saith not.—*Stethescope.*]

The Chemist's Dream.—Methought I was exploring the hidden recesses of an extensive cave, whose winding passages had never before echoed to the tread of human foot. With admiration and delight I was gazing at the thousand wonders which the flashing torchlight revealed on every side, at each step of my progress, when a strange sound, as of the hum of many voices, fell upon my ear. What such a sound could mean in such a place, was more than I

could divine. Curiosity led me in the direction whence it came. The buzz of conversation, cheerful as it would seem from the occasional bursts of merriment that were heard, grew more and more distinct, until the dark and narrow passage I had been following suddenly opened upon one of those magnificent rock parlors, of whose grandeur and beauty description can convey but a faint idea. A flood of light illuminated the arching roof with the vast colums of stalactics sparkling with crystals that supported it, and was reflected with imposing effect from the huge streets of the same material, of the purest white, that hung from the ceiling in graceful but substantial drapery. I stood in one of nature's noblest halls, but not alone.

A strange company had gathered there. Black spirits and white, blue spirits and gray, were before me. A festive occasion had assembled, in joyous mood and holiday attire, the first born of creation—the *Elements* of things.

In dreams, nothing ever surprises us. It seemed perfectly natural to see these fairy forms in that strange grotto. So, accosting without hesitation the one nearest to me, I apologized for my intrusion, and was about to withdraw. From my new acquaintance, however, I received so cordial a welcome and so earnest an invitation to become a participator in their festivities, that I could not deny myself the pleasure of accepting the hospitality so kindly offered.

I was soon informed that some of the leading characters among the *Elements* had resolved some weeks previous upon having a general picnic dinner party. Sixty-three family invitations had accordingly been sent out—one to each of the brotherhood—and preparations for the feast made upon a most extensive scale. Sea and land had been ransacked for delicacies, and every thing was put in requisition that could contribute to the splendor of the entertainment or the enjoyment of the occasion.

At the hour I so unexpected came upon them, nearly all the guests, with their families, had assembled in the strange drawing-room I have described, awaiting the summons to the banquet.

Spacious as the drawing-room was, it was nearly filled with these interesting children of nature. And here they were seen, not as in the chemist's laboratory, writhing in the heated crucible, or

pent up in glassy prisons, or peering out of gas holders and Florence flasks, but arrayed in their beauty, each free as air and acting as impulse prompted. There were those present of every hue, every style of dress, every variety of appearance. The metals, the gases, the salts, the acids, the oxides and the alkalies — all were there.

From the mine, from the shop of the artizan, from the mint, from the depths of ocean even, they had come; and a gayer assemblage, a more animating scene, my eyes had never beheld. Many of the ladies of the party were most tastefully attired.

Chlorine wore a beautiful greenish yellow robe, that displayed her queen-like figure to good advantage. The fair daughters of *Chromium* particularly attracted my attention, with their gay dresses of the loveliest golden yellow and orange red. *Iodine* had just arrived, and was not yet disencumbered of an unpretending outer garment of steel grey that enveloped her person; but the warmth of the apartment soon compelled her to throw this aside, when she appeared arrayed in a vesture of thin gauze of the most splendid violet color imaginable. *Carbonic Acid* was there, but not clad in the airy robes in which I expected to see her. The pressure of the iron hand of adversity had been upon her, and now her attire was plain—simply a dress of snowy white—the best which the straitened circumstances to which she had been reduced allowed her to assume. Quite a contrast to her was her mother *Carbon*, whom you would have supposed to have been a widow in deep mourning, or a nun who had taken the black veil—so sable were her garments, so gloomy her countenance—had not her ear-rings of polished jet and a circlet of diamonds that glistened on her brow evinced that she had not altogether renounced the world and its vanities. The belle of the room appeared to be *Nitric Acid*, the graceful daughter of *Nitrogen*, airy in all her movements, and with dress of deepest crimson, that corresponded well with a lip and cheek rivaling the ruby in redness. Among the lady metals, too, there were many bright faces and resplendent charms; but I must pass on to a description of the gentlemen of the party.

Sulphur wore a suit of modest yellow plush, while *Phosphorus* quite disconcerted some of the most decorous matrons present, by making his appearance in a pair of flesh-colored tights.

Phosphuretted Hydrogen, or, as he is nick-named, "Will of the Wisp," startled me, by flitting by in a robe of living flame, the

dress in which the graceless youngster is said to haunt church-yards and marshy places, playing his pranks upon poor benighted travelers. The king of metals, *Gold*, was arrayed in truly gorgeous apparel, though it must be confessed, there was a glitter and an air of haughtiness about him, from which you would turn with pleasure to the mild, sweet face of his royal sister, *Silver*, who leaned upon his arm, a bright-eyed, unassuming creature of sterling worth.

Mercury was there, as lively and as versatile as ever, a most restless being, now by the thermometer, noting the subterranean temperature, now by the barometer predicting a storm in the regions overhead, now arm and arm with this metal, then with that, and they all, by the way, save stern old *Iron*, had hard work to shake him off. A strange character surely was he—a philosopher of uncommon powers of reflection—the veriest busy-body in the world, well versed in the healing art, a practical amalgamatist—in short, a complete factotum. *Potassium*, though a decidedly brilliant looking fellow, manifested too much levity in his deportment to win respect, and was pronounced, by those who knew him best, to be rather soft. In gravity, *Platinum* surpassed all the rest, and in natural brightness was outshone by few. When *Oxygen* arrived, and his light, elastic tread was heard, and his clear transparent countenance was seen among them, a murmur of congratulation ran around the drawing-room, and involuntarily all assembled rose to meet him and do him homage. He was a patriarch indeed among them—literally a father to many of the youngest guests. His arrival was a signal of adjournment to the banqueting room, where of right he took his position at the head of the table.

Concerning the apartment we had now entered, I can only say it was grand beyond description. It was lighted up with the brilliance of noon-day by an arch of flame intensely dazzling, produced by a curious apparatus which *Galvanism*, who excels in these matters, had contrived for the occasion out of some materials which his friends *Zinc* and *Copper* had furnished him. Festoons of evergreens and wreaths of roses encircled the alabaster columns, and made the whole look like a hall in a fairy-land. But I must describe the table and its parapharnalia—the preparation of viands: I mean the baking, boiling, roasting, stewing, and the like, which had been committed to *Caloric*, who had long experience in that department. The nobler of the metals had generously lent their costly services

of plate, while *Carbon* united with *Iron* to furnish the elegant steel cutlery used on the occasion. *Alumnia* provided the fine set of china that graced the table, and *Silex* and *Potash*, without solicitation, sent as their joint contribution, cut glass pitchers and tumblers of superior pattern and transparency. As among the sons of nature there is no craving for artificial excitement. *Oxygin* and *Hydrogen*, who by the way have done more for the cold water societies than Delevan and Father Mathew, were commissioned to provide the drinkables, and what beverage they furnished may be easily be conjectured. *Carbon*, with *Oxygen* and *Hydrogen*, found most of the vegetables, and *Nitrogen*, whose assistance as commissary here was indispensable, joined them in procuring the meats under which the table groaned. No taste but would be satisfied with variety—no appetite but would be cloyed with the profusion of good things. Though the liberality of the four that have been mentioned left but little for their associates to contribute, still some individual offerings to the feast deserve to be mentioned. Thus, the oysters, *Carbonate of Lime* had sent in the shell; the pyramids of ice cream for the desert was provided by the daughter of *Chlorine* and *Hydrogen*, the bride of *Sodium*, who was out several hours in the snow engaged in freezing them, and the almonds and peaches came from the conservatory of *Hydrocianic Acid*, the druggist.

After grace had been said by *Affinity*, who is a sort of chaplain to the *Elements*, having officiated at the weddings of all the married ones of the company, a vigorous onset was made upon all the good things before them. At first, all were too much engaged for conversation; but the desert appearing at last, as they cracked their nuts, the jests too were cracked. Toast and song were called for, and wit and innocent hilarity became the order of the day. Even *Oxygen*, who had presided with such an air of dignity, relaxed from his sternness, and entertained the younger ones at the table with many a tale of his mischievous pranks in the days of old father *Chaos*, when *Time* and himself were young. Strange tales they were, too, of earthquakes with which *Hydrogen* and he would now and then frighten the Ichthyosauri and Magatheria of the ancient world, and of conflagrations comical, as of old *Vulcan's* tongs and anvil, kindling them before his eyes with the very bolt he was forging. This, however, he added, with a sly glance at his old partner *Nitro-*

gen, who sat near, was before marriage had sobered down his spirits and tamed his impetuosity.

I have no space to chronicle more of the freaks of *Oxygen's* early youth, nor any of the sayings and doings of others of this memorable night's party, else I might relate the marvellous story *Nickel* had to tell about the manner in which he managed to deceive and wrong the miners of former days, by making them believe that he was the parent of *Copper*, until at length they concluded that he was an evil spirit, whose sole object was to interrupt their operations. I would tell too of the drolleries of *Nitrous Oxide*, that funniest, queerest, craziest of youngsters, and how *Phosphorus* made a flaming speech, and *Potash* a caustic one, and how *Mercury* proposed as a toast, "the medical profession," to whom we say "use us but don't abuse us." I must speak however of a curious by-scene I chanced to witness. It was a flirtation that *Platinum* was carrying on with *Hydrogen*, whom, much to my surprise, I found seated up among the metals, and quite at home among them too. There was quite a contrast between *Platinum*, grey, heavy, and dull as he was, and the light and buoyant creature by his side, but there soon seemed to be evidence of some mutual attraction between them.

So passed the evening ; all went on "merry as a marriage bell," with nothing to mar the good humor that prevailed, until in an evil hour *Sulphuretted Hydrogen*, a disagreeable fellow, against whose appearance at the banquet most of the company had protested, entered the apartment with a very offensive air. In an instant the whole family of metals, to whom he is particularly obnoxious, changed color. *Lead* fairly grew black in the face with indignation ; *Arsenic* and *Antimony* seemed to be jaundiced with rage ; *Ammonia*, to whom his presence recalled very unpleasant associations, in trying to avoid him, precipitated several metalic oxides on the floor, while *Chlorine* with more self-command than the rest, advanced with a firm step to expel the intruder, looking as if she were about to annihilate him on the spot. Well, at this crisis, he spied *Nitric Acid ;* and knowing that his destruction was certain, if they should come in contact, he at once withdrew, very much to the satisfaction of the whole company.

How the scene might have terminated I know not, for just at that moment a strange sound of awful import, like the trampling of a

mighty host, came to my ears. I felt sure it was an earthquake's voice, and that now my fate was sealed. My knees tottered under me—the arching grotto and festive board gradually vanished from before my eyes, which opened upon the class as they were leaving the laboratory of our worthy professor of chemistry, where, it seemed, much to my confusion, I had fallen asleep during the lecture, and

"Dreamed a dream in the midst of my slumbers."

S. R. H.

Eclectic Association.—The following sarcastic Review, taken from the Transylvania Medical Journal, which we strongly suspect was written by its late able editor, is too just to be passed over unnoticed. The Eclectic Fraternity is making some progress, and a few of its members are men of some genius and education, but all their professional acquisitions are *stolen* from regular medicine. Their originalities, which in all conscience are sufficientlly abundant, are well set off by our Kentucky friend.—Editor.

REVIEW.

Transactions of the National Eclectic Medical Association, at its Third Annual Meeting, held at Rochester, N. Y., May 11, 1852, *together with the Accepted Reports presented by the Members.*

An apology is due from us, for having so long a time neglected to notice the brochure, the title of which is given above. Eccleticism is one of the modern family of *isms*, the definite characteristics of which we have never been able to learn, and we hailed the appearance of this volume of 170 pages with unusual pleasure, because we anticipated that now the indefinite and obscure claims of superiority which had been clamorously asserted, were about to assume distinct form and tangibility, or that we had before us the key to the oft repeated but as yet unanswered question, "What is Eclecticism?" We shall see in the course of the brief review which we design to make of this volume, which may be regarded as the formal

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exponent of the great modern system of medical Eclecticism, what answer is given to the oft recurring interrogatory. The preface of the fair yellow-backed volume informs the reader, "by way of explanation, not of apology," that the authors of the different reports did not prepare those reports for publication, and that the separate papers do not possess that high finish which they would have had, provided the writers had been aware of the fact that the immortality of print awaited them. They are to be received merely as the miscarriages of the several labors, and as the first abortive fruits of a great result, which by a process of involution is to be, at some future day, devoted to new and more perfect regeneration.

The present publication is made "because of the increasing popularity of our principles, and the growing demand for light in relation to them by the people. If another reason be demanded, we find it in this—that the time has arrived when the young *Eaglet* must soar and take his place even above the birds of the more practiced wing, and in the clear, upper atmosphere of truth and truthful success." The figure of the Eclectic preface is as false as the claim of the system among the fair sisterhood of the Sciences. The eaglet can only dare the blue empyrean, where his sire of more practiced wing and wider sight soars in peerless pride and looks in the face of the sun, after long and painful teachings of imitation and experiment; and he is never mistaken for the sparrow, that perched upon the back of the monarch of the upper air, and thus riding the giddy height to heaven, still feebly fluttered a little higher and plumed himself the superior of the bird of Jove.

Our eclectic friends have climbed to a certain height, and are evidently giddy with the feat. The mite mounted, with dreadful toil, the globe worked into shape from base material, by the instinct of a tumble bug, and saw the universe around him in the infinitude of space,—he its monarch and centre. The frisky animal who climbed the pole was happily unconscious of the truth thus conveyed:

> The higher the monkey climbs the pole,
> The more he shows his tail,

and eclectics may "profit by the example."

We will endeavor to proceed with as much gravity and decorum

as the nature of the subject will permit, to notice the "Transactions," and shall faithfully endeavor to ascertain whether the system has principles, or is, as some ill-natured allopaths have hinted, totally unprincipled.

The meeting was organized after the usual fashion. Dr. O. Davis, one of the standing committee, as is stated in a few short words, made a long speech, representing in a forcible manner the character and claims of Ecclectic Colleges and Physicians. He urged the necessity of a high standard of qualifications, since on that lay the hopes of success. This is all very well. Of course the orator speaks well of his co-laborers; it is a foul bird that will dirty its own nest. A great deal of unction and enthusiasm prevails in the occasional speeches of the President and members. A letter of Dr. L. Oldshue offers a capital illustration of the prevailing tone of the speeches and correspondence. He regrets that he cannot attend, suggests that the "glorious cause espoused by this association will collect a large array of influential and distinguished men, who have abandoned their pursuits and sacrificed their comfort to assemble together, &c.; and that not for their own recreation, nor to promote private interests alone, but to take part in promoting the interests of all mankind"—and the rest of the world! He goes on to show that Prof. Joe Buchanan proved in a public lecture recently delivered in Cincinnati, that the adoption of the Eclectic practice, in the United States alone, would have saved over THREE HUNDRED THOUSAND LIVES per annum"! Prodigious!! Marvelous and verecund Joe Buchanan!! Well may Dr. Oldshue exclaim, "What a living mighty monument! And will it be considered strange, in view of the stupendous result, that an allopathic sceptic exclaims, What an Almighty, Eclectic, that is to say, choice—fib!!! We urge you to consider, charitable and truth-loving allopath, that the calculation is based on statistics, and that, although, as you still insist, Joe Buchanan will lie, yet figures can't do the dirty thing, and all that is left for you is to be converted in time, and ride the current of progress while you may. "The lives *we* (!) thus individually save, are so many moving signs and living advertisements, setting forth the value of our work and the truth embodied in our system." Here begins an episode of the doctor's individual experience, which is ex-

ceedingly rich. "Five years ago," says Dr. Oldshue, "I commenced practice in this place, building up for myself this little monument of flesh and blood—(wonder if the doctor is a married man)—saved from the smouldering ruins of allopathy. Since that time, I have treated over five thousand cases, and to the best of my knowledege —(ahem!)—not twenty persons in all that number have yet been contributed to the Allopathic monument of *human bones!*" Guard thy high interests, Allopathy; they are here assailed by the jaw-bone of an ass, which, if its owner were a Samson, would bear more terror and desolation into thy ranks, than did the arm of the long-haired Hebrew boy through the army of the Philistines.

A Dr. Brown next takes up the cudgels, and tells the Eclectics to stick to their principles. "Stick to your principles, Eclectics, as the pick-pocket said ven he took the gentleman's purse;" and if you have no principles, why stick to them all the closer. But softly, we may be doing injustice to the Eclectics, and they may have a principle which will appear after a while, like the denouement of a plot. Thus far, there has been a great clamor about principles, but it has been a pig-shaving business—great cry and little wool. Probably Mr. Brown will enlighten us. He says, "the reason is very obvious to the reflecting mind, why Eclecticism will supersede all other systems of medical practice." First and foremost, Brown says it will, and who should be supposed to know if Brown doesn't? And then, "other systems of medicine are limited to certain principles and prejudices of party, so that those persons who adhere to them cannot receive all new truths as they present themselves in the light of science and observation. But with *us* no barrier,"—not even owl-sighted ignorance, which sees nothing in the light of the living day, but must seek night and solitude to get by stealth a few rays of dimly reflected truth, so few and faint as to seem to be darkness to perfect vision,—"prevents a hearty reception of all discoveries, whether pathological or therapeutical." Our Dr. Brown—not Brown so often enquired after—was one of a committee on medical statistics, and reports to the National Eclectic Med. Ass. the following matters, which are surely of a national, and characteristically of *an* eclectic interest. The past year very healthy in—Alleghany City, no *prevailing epidemic* except Rubeola and Scarlatina: I, Dr. Brown, treated between 30 and 40 cases of Rubeola, with none

fatal among the number. Some of these cases were severe, accompanied with a Typhoid Diathesis and Pulmonary inflation. Under mild and safe means—"sheep saffron and sich"—they all recovered rapidly. Dr. B. used the vinous Tinc. Ipecac. in expectorant and diaphoretic doses, in nearly all of the cases:—gave particular attention to the "cuticular surface," ordering ablutions once or twice a day. This, and similar twaddle, composes the sum and substance of Dr. Brown's report on medical statistics! Why, sister Shad and Miss Barney of the Georgia Scenes would have contributed an experience in the use "yarbs and doctor's means," a thousand fold more valuable than this of our eclectic, Brown. Dr. B. had several cases, "poradoxical as it may appear," of measles without eruption. Novel and erudite Dr. Brown! Truly, knowledge is power, and "book larning," as Dogberry discovered long since about reading and writing, comes by nature. As an explanation of the paradox, the author suggests that the disease was probably modified by the idiosyncrasy of the persons, or atmospheric influence. This is no exaggeration, indulgent but yet suspicious reader. You will find it in our copy of the Eclectic Med. Ass. Transactions, for 1851, and we here make a reclamation, as the French say, in behalf of Dr. Brown, Dr. J.—possibly John—Brown, and bid the world bow in acknowledgement of the fact, that he—Brown—was the first to discover a measles without the eruption, idiosyncracy; and it is a peculiar and distinguished trait of Eclecticism, that "no barrier prevents a hearty reception of all discoveries, whether pathological or therapeutical." A number of cases of convulsions among children were "*invariably*" relieved by Dr. B. "*except in one or two cases*, when there was a manifest organic lesion, which no system of medication could benefit." What the manifest signs of lesion were, and what the organ affected, Dr. Brown does not condescend to inform us. Lobelia is his remedy, and, take his word for it, Dr. Brown is "hell on fits." His obstetrical practice "has been very extensive. He used the forceps only once during the past year," but then, we are surprised to learn, "with safety and success to both mother and child!" "The case was one of inertia of the uterus." The concluding observation of this very voluminous and learned report—not quite three pages of large type—is a beautiful admixture of quaintness and simplicity. We know not whether most to admire

the unadorned matter of fact style in which he says the most extraordinary things, or the strength and originality of the things themselves. Judge ye, readers, in the difficult case:

"I believe that when the maternal organs are properly relaxed, and the state of the case requires any efforts beyond the disposition of the uterus to put forth, the use of the forceps must prove much more safe to the child than the administration of ergot, which is always attended with *some risk!*" All of which, in its full length, breadth, and profundity, is gravely and modestly submitted to the Nat. Ec. Ass.

We respectfully submit this Report on Medical Statistics to our Allopathic friends, as a model to be studied, if not imitated. A report to a National Convention on Medical Statistics, representing the common-place experience of an ordinary practitioner in a small town, and that experience depending on the "best of the reporter's recollection" of those significant facts, which would scarcely have furnished items of gossip to a village coterie of grannies, may be taken as a fair standard of the intellectual stamina of that grave body that adopted and published it as a part of their transactions. Alas! Moliere, what a theme is lost to thy wit-contriving brain by an untimely death! If heaven could only lend you to the world for a month, you would surely carry back a comedy, which, by the strong and truthful delineation of solemn and stupid pretension, as the traits might be caught from these farcical eclectics, would set the higher world in an uproar. If there is any truth in the metempsychosis, the author of this report must be the heir to all the genius of a whole family of jackasses. We wish him a good time of it.

Next in order, is a letter from Dr. C. H. Cleaveland, written as if the very act of composition made him feel good all over. There is an odd mixture of associations in the letter, which puzzles conjecture in the formation of a psycho-physiological estimate of the writer's character. He is alternately pathetic in his praises of eclecticism, and his denunciations of the the old body of physicians, a swindler, of political *slang-whangery*, in the perverted application of the terms *old-fogyism*, conservatism, and other equally polite phrases from a well-furnished vocabulary of vulgarity, to Old Physic, a pedant and dogmatist in the pert display of a few gaudy pinchbeck commodities of knowledge; and a phizzing squib of a critic who carps at all

systems of medicine, and comprehends none. His vivacity and eagerness are like those of an unfortunate poodle who has received a dab of turpentine under his tail, aimed by the hand of a mischief-loving urchin. We cannot better express our notion of this correspondent, than by reference to a somewhat fishy saying that he is "betwixt a stool and a sweat."

The next item, in order, is a report on the comparative merits of different medical systems, by Dr. Z. Freeman, of Cincinnati. Here is field and scope enough for the furniture of volumes. Old Broussais was a practical man, but it took several volumes for his condensed history of medical systems. Portal, the accomplished scholar and physician, has also given us a history of medicine; but it is enough to give one the headache to look at the corpulent volumes through which the medical antiquary must follow the clew that leads down through the dust and decay of centuries; from the old man of Cos, whose mind seemed to flash out truths which were lost amidst the fogs and darkness of succeeding ages, and again break upon the world in all their former truth, down to the living, breathing present; almost, yea verily, within the infinitissimal fraction of a moment of Dr. Z. Freeman himself, and the Nat. Ec. Med. Ass. What cannot genius, aided by the helps which science gives, accomplish! That achievement which caused Portal and Broussais the the toil of years, and still left the world in controversy upon the contending field of medical systems, has been simplified by the intellect of Freeman into the intensity of less than a page. Millions of human beings had seen an apple fall from a tree before Sir Isaac Newton observed the same, but who before him possessed the divine perception which led him from the common fact up into the clear communion of the sublimest mysteries of the universe. And who but Freeman could in the miraculously short space of seventeen lines, even with the assistance of the Nat. Ec. Med. Ass., have struck out the clear, conclusive solution of the difficulty, which, like Newton's apple, dates back through centuries. There is something akin to the Roman imperiousness of Cæsar's "Veni, vidi, vici," in the sententious annunciation of Freeman, that "the results of Allopathy, Hydropathy, and other practices, are not satisfactory to the thinking community. Homœopathy in this city is slowly on the wane, Eclecticism is gaining ground rapidly, and our best citizens are adopting it in their families

Its superior efficacy, not only in the treatment of diseases in general, but in its application to surgery," &c. For comparative statistics to illustrate Dr. Freeman's septuadecimal report on medical systems, we are referred to Dr. Brown's three pages of National Statistics, gathered from the "best of his recollection" of a private and uneventful practice in Alleghany City. Who would desire a more complete body of evidence than is here furnished? It would not in all probability, satisfy Locke, or Whewell, or Paley, or Whateley, or Starkie, but then they were not Ecclectics, and who does not know the power of prejudice?

A report on Dispensatories, by Drs. King and Newton, is done up in the same business-like style. There is a penury of words and grammatical proprieties, representing, we suppose, the inverse ratio of the wealth of ideas. There is no perceptible process of comparson and analysis: synthesis and analysis are not Eclectic processes. The committee very modestly but frankly state that "since the last annual meeting of the Association, there has been issued a work, entitled the 'M. E. (Methodist Episcopal?) Dispensatory of the U. S.' by King and Newton—(ahem!)—both of whom are members of this committee; and as a direct corrollory of this fact, they recommend King and Newton's Dispensatory, as the very best to be had; indeed, when we consider that "there were no works on the subject," and that the material existed "in an indefinite and scattered condition," the only wonder is that the M. E. Dispensatory was ever got up at all by King and Newton. "Although it has been in print for about seven months," the profession of every denomination take it eagerly, as children do worm lozenges, and are clamorous for more. The committee therefore recommend the above work, and the most captious Allopathic will not deny that King and Newton, as committee men of the Eclectic Ass.—how my pen halts at the impertinent abbreviation—may speak of the doings of King and Newton as editors, without laying themselves liable to the charge of vanity and egotism. OLD PHYSIC.

[TO BE CONTINUED.]

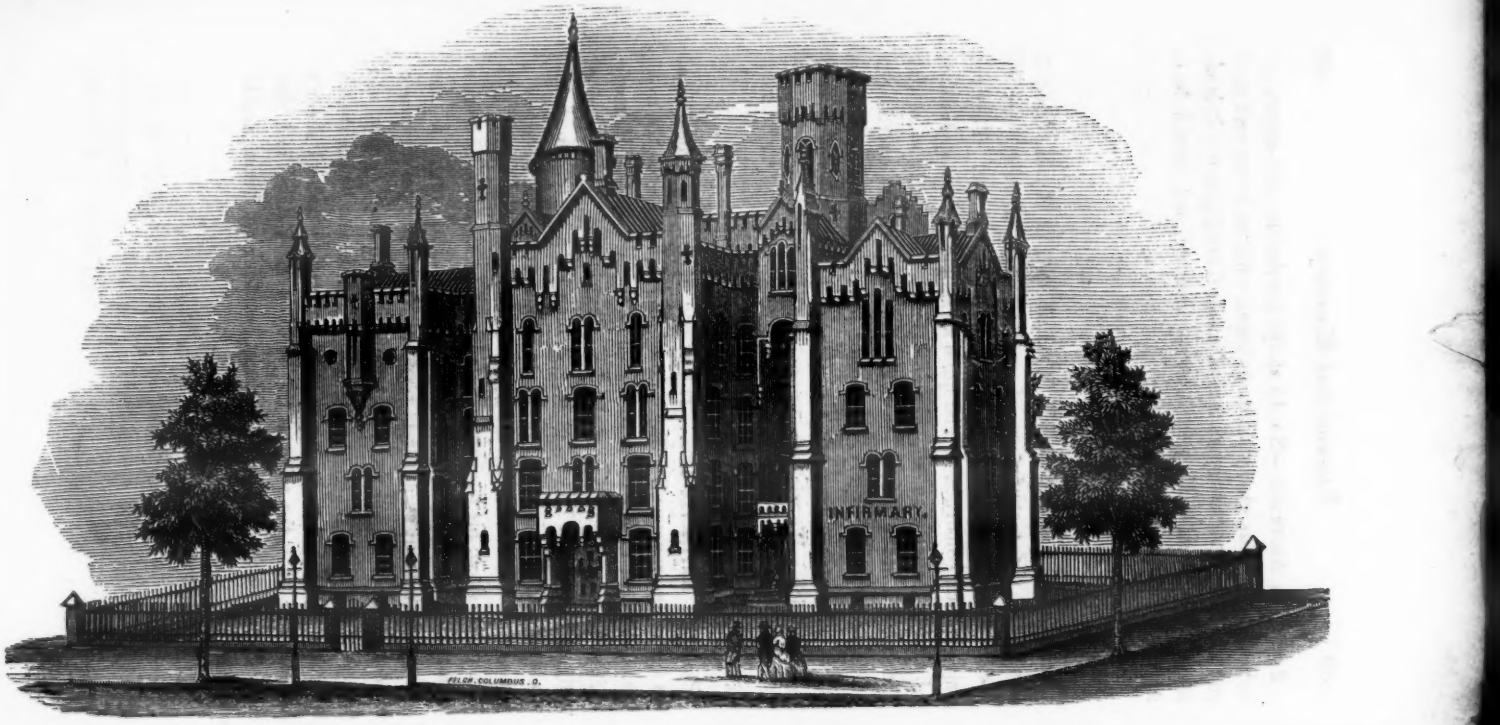
DR. F. G. SMITH, one of the editors of the Medical Examiner, has been appointed to the Chair of Institutes of Medicine, in the Pennsylvania Medical College.

Ranking's Abstract.—No. 15 of this invaluable semi-annual periodical comes to us richly laden, as usual, with the rarest and most practical and important specimens of medical intelligence. It is already widely circulated throughout our country, and should be in the library of every physician.

Trusses.—Our friend Dr. N. W. Hubbard, of Elyria, Ohio, is engaged in the manufacture of trusses, which in most, and all essential respects, are superior to any others now in use. They are simple in their construction, and quite as simple in their application, and what is better than all, they are almost universally successful when applied in the proper manner. For his personal exertions in this department of Surgery, the Doctor deserves the gratitude of the public. His instruments are sold, wholesale or retail, at a very moderate price. We wish him every success.

Palmer's Artificial Leg.—This is one of the improvements of this age of improvement. Nay! we might say it is one of the wonders of the age. Since the introduction of anæsthetics and Palmer's artificial limbs, amputation of the lower extremities is deprived of nearly all its terrors.' Think of it! A man has a leg torn to shreds in a thrashing machine, or ground to atoms under the wheels of a railroad car. He forthwith, under the influence of chloroform, falls into a placid sleep, his leg is amputated, and he awakens, as from a pleasant dream. In a few months he is walking erect, a man among men, without an apparent blemish. The principal difference between his natural and artificial legs is, in symmetry, beauty, and perhaps in flexibility the latter outstrips the former, and he has reason to become dissatisfied with his *congenital* leg! No wonder Palmer's Artificial Leg took the prize at the World's Exhibition, and that hundreds are flocking to him for his most beautiful and incomparable substitute.

See advertisement.



HOWARD INFIRMARY

HOWARD INFIRMARY.

This Institution, which embraces the west wing and front of the edifice represented in the above engraving, originally designed by its founder, LYNE STARLING, Esq., for Infirmary purposes, is now open and ready for the reception of patients. Its apartments are large, salubrious, and delightfully arranged—overlooking, in all directions, the city of Columbus, most of its public buildings, and the surrounding country.

The Institution is designed by its present proprietor, for the treatment of persons afflicted with every variety of *Chronic Disease*, capable of cure or relief, irrespective of age or sex; but more especially for the treatment of such diseases as come within the domain of Surgery. A portion of the building, to some extent isolated, is prepared for the reception of patients afflicted with diseases of the eye, and for those requiring operations for their restoration to sight. Other apartments are suited to a greater variety of surgical disease, while those in front; which are fitted up in a neat and elegant manner, are set apart for the accommodation of females who resort to this Institution for the treatment of diseases peculiar to their sex.

An abundant supply of water is secured, so that baths of every description—the cold, warm, and tepid, the shower, sitz, and douche baths, will always be in readiness for those whose diseases require their employment.

Mrs. WRIGHT, formerly matron to one of our State Institutions, whose talents and personal accomplishments admirably fit her for the responsible place, is Matron to this institution. She will always be present or accessible to those who may need her kind attentions.

Attendants and household servants will always be in readiness to meet or anticipate the wants of every patient.

The subscriber, at a heavy expense, having made every necessary arrangement, assures Invalids and persons resorting to him for treatment, that no appropriate professional service or personal attention shall be omitted for the restoration of those to health who may commit themselves to his care. He invites physicians, as well as those afflicted, to call and examine his facilities for the treatment of disease.

TERMS.—The Terms upon which patients will be admitted will vary somewhat according to the importance of the case, the attention bestowed, the room occupied, and the pecuniary circumstances of the patient. For Board, Washing, Room, Fuel, Lights, Nursing and Treatment, the charges will generally range from $6 to $10 per week. SURGICAL OPERATIONS will always be extra.

R. L. HOWARD.

COLUMBUS, Ohio, January 1, 1853.

SURGICAL IMPROVEMENT,

REWARDED BY THE MEDAL OF THE AMERICAN INSTITUTE.

DR. B. WELCH's Surgeons' Splints and Improved Apparatus for Fractures, &c. "Letters Patent" granted for U. S., September 1852. These instruments will be sold at the following prices, viz:

1. Arm and Forearm Splints, consisting of 2 Shoulder Splints, each - - -	$00 75	$1 50
6 Arm do - - - -	00 25	1 50
3 Pair Forearm do - - - -	00 75	2 25
2 Pair Ulnar do - - - -	00 75	1 50
1 Set Elbow Joint Fixtures, - - -		1 25
The Set - - - - - -		$8 00
2. Thigh and Leg 1 Single Extension Splint for Thigh and Double inclined Plane for Leg and Thigh, with flexible Splints, different sizes - -		17 00
The Set, 1 and 2, for arm, thigh and leg -		$25 00
3. Double jointed extension apparatus for the thigh, in either the flexed or extended position, with flexible splints - - -	20 00	
Jointed apparatus, and flexible side splints for the leg, do - - - - - -	12 00	
Together - - - - - -		30 00
4. Three pairs longitudinal half boots, No. 1, each splint - - - - -	1 50	
2, do - - - - -	2 00	
3, do - - - - -	2 50	
The Set, 3 Pairs, - - - -		12 00
The set, 1, 3, and 4, for arm, thigh and leg,		50 00

Orders accompanied by cash or a certificate of deposit, or other evidence of credit at a bank, made to the manufacturers, B. Welch & Co., Lakesville, (Salisbury) Connecticut, will be immediately supplied, by express, on either the Hartford or Housatonic Railroad; and Railroad and Express charges, not exceeding 10 per cent. of the amount ordered, may be deducted, or will be prepaid.

☞ Circulars, containing full descriptions and directions for using the apparatus, will be sent to Surgeons or Physicians requesting them.

R. P. LITTLE, M. D., APOTHECARY & DRUGGIST,
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Successor to Drs. Denig & Harry.

WILL wholesale and retail Medicines, Chemicals, Drugs, Surgical and Dental Instruments, Paints, &c., &c., at exceedingly low prices. His assortment includes every article usually kept by Druggists; as he is daily receiving his stock, he can present many inducements to physicians and druggists in this and adjoining towns, if they will only favor him with a call.

Having enjoyed many years' experience in compounding medicine, he will promptly and very carefully fill Physicians' prescriptions, and to this branch of business he will give special attention, as he regards it of the highest importance. None but the best medicines will be used for this purpose, and he will strictly observe chemical principles in their combination. As he purposes devoting his time entirely to the occupation of a druggist, he solicits the patronage of medical men and the public generally.

January 1, 1823.

CINCINNATI SUMMER SCHOOL OF MEDICINE—SESSION OF 1853.

THE regular Course of Lectures in this Institution will commence on the third Monday in March and continue for the period of sixteen weeks.

LECTURERS.

LANDON RIVES, M. D. Principles of Surgery.
S. HANBURY SMITH, Principles of Medicine, Physical Diagnosis, and Diseases of the Chest.
WM. H. COBB, M. D., Anatomy.
J. FRANKLIN WRIGHT, M. D.. Microscopical Anatomy.
P. J. BUCKNER, M. D., Diseases of Women and Children.
D. C. TANDY, Medical Jurisprudence.
WM. CARSON, M. D. Obstetrics.
CHAS. WM. WRIGHT, M. D., Medical Chemistry.
JAMES GRAHAM, M. D., Materia Medica and Therapeutics,

LANDON RIVES, M. D., President.
CHAS. W. WRIGHT, M. D., Secretary.

THE DISSECTING ROOMS will be open during the early part of the Course, and those students desirous of pursuing the study of practical anatomy will have an opportunity of so doing.

Clinical Lectures on Surgery and Medicine will be delivered at the Commercial Hospital twice a week, by the attending physician; and the Lecture hours will be so arranged as to permit the student to go through the wards of the Hospital every morning, where he will have an opportunity of seeing patients examined and prescribed for. He will also be enabled to obtain a practical knowledge of Physical Diagnosis and Diseases of the Chest, in the same Institution.

The use of the Microscope in the examination of both healthy and morbid structures, and all of the tissues examined.

Physical Diagnosis and Diseases of the Chest will he fully discussed, and illustrated by cases, by the Lecturer on the Principles of Medicine.

Chemistry, in its applications to Phsyiology and Pathology will receive special attention.

From three to four lectures a day will be delivered.

FEES.—*General Ticket*—$20.
Hospital Ticket—$5.

☞ Students attending this Course will not have to purchase the Hospital Ticket the coming winter.

For further information address

CHAS. W. WRIGHT, M. D., Secretary.

Office N. E. Corner Third and Race.

J. & R. T. COOK,

WHOLESALE AND RETAIL DRUGGISTS,

OPPOSITE THE CAPITOL HOUSE,

COLUMBUS, OHIO.

HAVING just commenced the Drug business in the city, they would respectfully invite the attention of Physicians of Columbus and surrounding country, to their large and well-selected stock of

DRUGS, MEDICINES AND CHEMICALS.

Embracing every article in the Materia Medica, used by physicians, which they have just purchased in eastern markets, and offer at very low prices; all of which are warranted to be perfectly pure.

Below, we give a list of a few of the leading articles:

DRUGS AND MEDICINES.

Opium, (best Turkey,)
do pow'd, " "
Rhubarb, " "
do pow'd, " "
Ipecac, pow'd,
Jalap, do
Dover's Powder,
Glycerin,
Cod-liver Oil, (Rushton, Clark & Co.)
Ergot, (good.)
Oil of Ergot,
do Cubebs,
Oil of Copaiba,
Solidified Bals. Copaiva,
Cinchonia, in oz. bottles,
Cinchona Flava,
do Red,
Lapulin,
Elaterium,
H. H. & Inspected Extracts.

☞ All Syrups, Tinctures, &c., are prepared, full strength, according to U. S. Dispensatory.

CHEMICALS.

Iodide of Iron,
do Sulphur,
do Potasseum,
do Arsenic,
do Lead,
Iodine, (Sublimed,)
Syrup Iodide of Iron (strength U. S. D.
Solution do do
Valerianate of Iron,
do Quinine,
Sulphate of Quinine,
Calomel, (English,)
Nit. Silver, (stick and crystalized,)
Collodion,
Valerianate of Zinc,
Hydrated peroxide of Iron, (antidote for arsenic,)
Morphia Sulphate,
do Muriate,
do Acetate,
Ferri Citras,
do do et Quinia,
do Lactas,
do Cyanide,
Peperin,
Tanin,
Phosphate of Lime, (Pure,)
Bismuth Sub. Nit.
Chinoidine
Pricip. Extract of Bark.
Chloroform.
Chloric Ether.

We also keep constantly on hand, a full supply of perfectly pure Chemical Reagents made expressly for analytical purposes, which we manufacture ourselves, and warrant to be as represented.

Palmer's Patent Artificial Leg.

Prize Limb of the World's Exhibition!!

THIS substitute (the invention of B. Frank. Palmer, who himself lost a limb at an early age) differs radically from all other artificial legs; and in form and motion so nearly resembling the natural limb as to effectually conceal the misfortune of the wearer. It has the articulations of knee, ankle and toes, all of which are operated by tendons and springs, (in the interior of the limbs) which perform the functions of the Tendo-Achillis, Flexor, Extensor, and other muscles giving a nature-like elasticity, and rendering the step firm and secure in walking. This limb is applied, with great success, to the shortest and tenderest stumps, its excessive lightness, and self-acting quality fitting it peculiarly for such cases. About five hundred of these limbs are now in constant use, consequently the inventor and proprietor, can speak from an experience which no other manufacturers have had, and they do not know of any person using limbs of any other construction, who has had one of Palmer's Patent; and they are now almost constantly fitting limbs for persons well supplied, in numbers, with those of every other construction.

The Inventor has been honored with twenty gold and silver medals, or FIRST PREMIUMS, at the great Annual Exhibitions in New York, Philadelphia, Boston and Baltimore, and has NEVER, in a single instance, failed in receiving the HIGHEST award, when there has been competition.

Mr. Palmer having perfected his invention in the year 1850, and established its pre-eminence over all others in this country, determined to present it at the World's Exhibition, in London.

The Jury on Surgical Instruments and Artificial Limbs then consisted of Wm. Lawrence, F. R. S., President of the Royal College of Surgeons; Joseph H. Green, F. R. S., and Mr. Philip, of London; M. Roux, Surgeon to the Hotel Dieu; M. Lallem and, member of the Institute, Paris; and Dr. Chadbourne, of the United States. The best English, French, and German Limbs were exhibited in competition, and yet PALMER'S PATENT LEG was UNANIMOUSLY declared, by this learned body, to be "*decidedly the best artificial leg exhibited,*" and Mr. Palmer was, accordingly, awarded the MEDAL.

☞ The following certificate is from Dr. Guthrie, late President of the Royal College of Surgeons, London. Similar expressions from Sir Benj. Brodie, and others, were received:

"LONDON, September 30th, 1851.

SIR—I have no hesitation in stating that I consider your Patent Artificial Leg to be the best invention I have yet seen—the most useful and the least distinguishable from the natural limb.

I am, sir, your very obedient servant,

B. FRANK. PALMER, Esq. G. J. GUTHRIE.